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## ABSTRACT

According to estimates prepared by the Bureau of the Census and the Economic Research Service of the United States Department of Agriculture, the 1982 farm population of 5,620,000, or 2.4% of the national population, continued a long downward trend. About 45% of farm residents lived in the North Central region, 35% in the South, 13% in the West, and 7.5% in the Northeast. Whites comprised 96% of the farm population and Blacks, 3.2%, versus 85% and 12.1% of the non-farm population, respectively. Only 2.3% of the farm population was of Spanish origin. Compared to non-farm residents, farm residents were slightly older and more likely to be married and living with a spouse. Farm women bore significantly more children than non-farm women. Farm population labor force participation was higher than for non-farm residents, especially among men and in the West and North. The unemployment rate of 3.6% was relatively low. Most farm men were employed in agriculture, but most farm women were not. Self-employment was higher and median income was lower among farm residents. The report contains supporting statistical tables, definitions, explanations, and a statement regarding the source and reliability of the estimates. (SB)

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# Farm Population

Series P-27, No. 56

## Farm Population of the United States: 1982

U.S. Department of Commerce  
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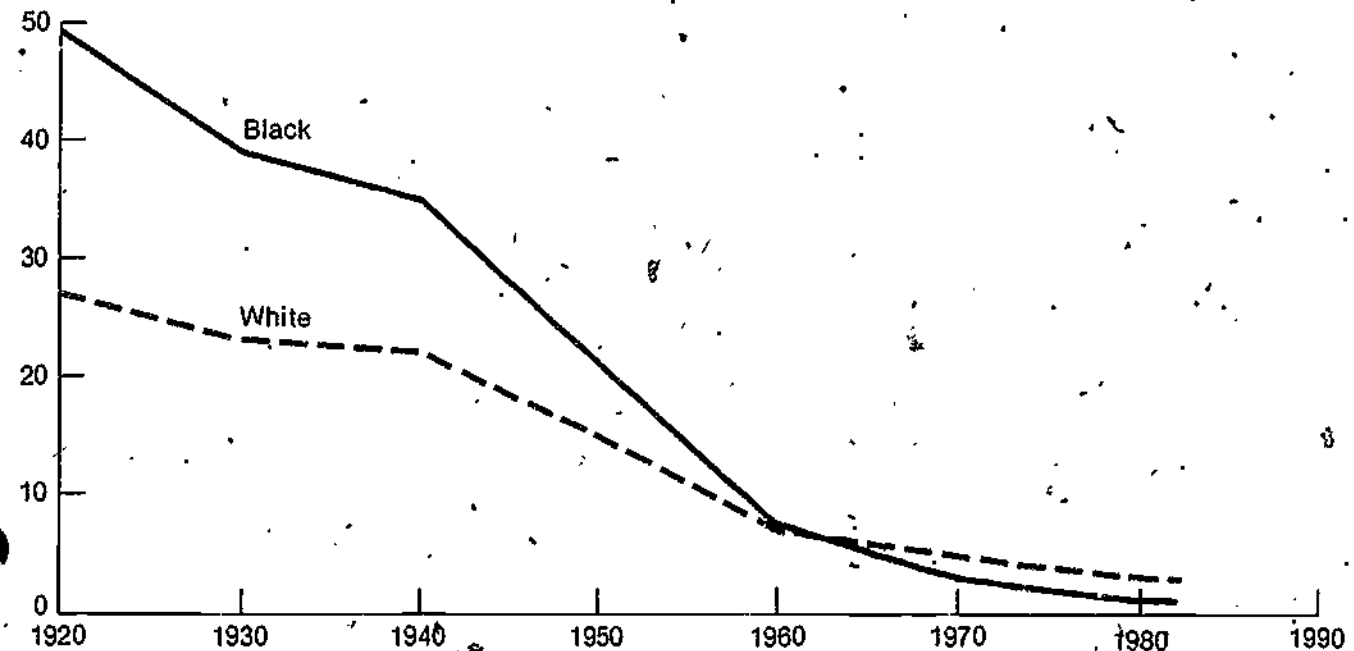
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Figure 1

### Percent of Population Living on Farms by Race: 1920 to 1982

Percent



## Farm Population

Series P-27, No. 58  
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# Farm Population of the United States: 1982

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## SYMBOLS USED IN TABLES

—	Represents zero or rounds to zero.
B	Base less than 75,000.
NA	Not available.
X	Not applicable.

# Farm Population of the United States: 1982

## INTRODUCTION

The number of persons living on farms in rural areas of the United States averaged 5,620,000 for the 12-month period centered on April 1982 (table A). About 1 out of every 41 persons, or 2.4 percent of the Nation's total population, had a farm residence. These estimates were prepared by the U.S. Bureau of the Census and the Economic Research Service of the U.S. Department of Agriculture.

**Table A. Total and Farm Population of the United States: 1920 to 1982**

(Numbers in thousands)

Year	Total resident population <sup>1</sup>	Farm population	
		Number of persons <sup>2</sup>	Percent of total population
CURRENT FARM DEFINITION			
1982.....	231,023	5,620	2.4
1981.....	224,064	5,790	2.6
1980.....	221,672	6,051	2.7
1979.....	219,611	6,241	2.8
1978.....	217,771	6,501	3.0
PREVIOUS FARM DEFINITION			
1982.....	231,023	6,870	3.0
1981.....	224,064	6,942	3.1
1980.....	221,672	7,241	3.3
1979.....	219,611	7,553	3.4
1978.....	217,771	8,005	3.7
1977.....	215,966	7,806	3.6
1976.....	214,282	8,253	3.9
1975.....	212,542	8,864	4.2
1970.....	203,235	9,712	4.8
1960.....	179,323	15,635	8.7
1950 <sup>3</sup> .....	150,697	23,048	15.3
1940 <sup>3</sup> .....	131,669	30,547	23.2
1930 <sup>3</sup> .....	122,775	30,529	24.9
1920 <sup>3</sup> .....	105,711	31,974	30.2

<sup>1</sup>Official census counts, except 1975-82, which are estimates.

<sup>2</sup>Farm population estimates for 1920 to 1970 from *Farm Population Estimates, 1910-70*, U.S. Department of Agriculture, Statistical Bulletin No. 523, July 1973; Current Population Survey five-quarter averages centered on April beginning 1960. See appendix A.

<sup>3</sup>Conterminous United States.

NOTE: Figures for 1982 are consistent with the results of the 1980 census; figures for 1970-81 are consistent with the results of the 1970 census; and figures for other years are consistent with the results of those censuses. Figures for 1981 based on 1980 census population controls are: 228,829,000, total resident population, 5,850,000, farm population (current definition); and 2.6 percent, farm population as percent of total population.

The farm population estimates for 1982 are based on the farm definition that was introduced into this data series in 1978. Under this definition, the farm population consists of all persons living in rural territory on places which had, or normally would have had, sales of agricultural products of \$1,000 or more during the reporting year.

Under both the current and the previous definitions, the farm share of the total U.S. population continued its long-term downward trend. In 1920, when the farm population was first identified separately, 30.2 percent of the Nation's resident population lived on farms. By 1950, this proportion had fallen to 15.3 percent, and by 1982, it had dropped to 2.4 percent.

The 1982 estimate of the farm population is about 170,000 lower than the estimate of 5,790,000 for 1981, but this apparent decline is not statistically significant. The chances are about 1 out of 7 that a decline of this magnitude would have been obtained from the sample without any actual change having occurred in the farm population between 1981 and 1982. Although the single-year change between 1981 and 1982 is not statistically significant, the indicated loss of 431,000 farm residents during the 2-year period from 1980 to 1982 does represent a statistically significant decline. (See "Reliability of the Estimates" in appendix B.)

## DEMOGRAPHIC AND SOCIAL CHARACTERISTICS OF THE FARM POPULATION

**Distribution.** Forty-five percent of the farm population lived in the North Central Region of the United States in 1982 (table B). The South, which until 1965 had the largest share of the farm population, ranked second in 1982 with 35 percent.<sup>1</sup> The West and Northeast Regions contained just 13 and 7.5 percent of all farm residents, respectively:

<sup>1</sup>Banks, Vera J. and Calvin L. Beale, *Farm Population Estimates, 1910-70*, U.S. Department of Agriculture, Statistical Bulletin No. 523, July 1973.

**Table B. Regional Distribution of the Farm Population: 1982**

(Numbers in thousands)

Region	Number	percent
Total.....	5,620	100.0
Northeast.....	419	7.5
North Central.....	2,517	44.8
South.....	1,955	34.8
West.....	728	13.0

Source: Current Population Survey five-quarter averages centered on April 1982.



Most farm residents reside in nonmetropolitan territory; however, in 1982, 18 percent of the farm total lived within the boundaries of standard metropolitan statistical areas (SMSA's) as defined in 1970 (table 2). In comparison, about 69 percent of nonfarm residents lived in SMSA's. Metropolitan farm residents were primarily concentrated in the smaller SMSA's, as reflected by the fact that about three-fourths of metropolitan farm residents lived in rural parts of SMSA's of less than 1 million inhabitants.

**Race and Spanish origin.** In 1982, Whites constituted 96 percent of all farm residents, a proportion that was significantly higher than the 85 percent White among nonfarm residents (table C). There were 179,000 Blacks on farms in 1982, which represented 3.2 percent of the total farm population. Blacks accounted for 12.1 percent of the nonfarm population. Only 130,000 or 2.3 percent of farm residents were of Spanish origin, whereas in the nonfarm population, persons of Spanish origin accounted for 6.4 percent of the total.

Black farm residents have experienced higher rates of decline than Whites over the period for which statistics have been collected. Nearly one-half of the total Black population lived on farms in 1920, compared with just over one-fourth of the total White population (figure 1 and table 1). These proportions had fallen to 21 and 15 percent, respectively, by mid-century, and by 1982, they had dropped to just 1 and 3 percent, respectively. Based on the previous farm definition, upon which earlier data are based, the number of Black farm residents declined by 71 percent between 1970 and 1982, while the number of White farm residents fell by 25 percent.

Factors related to the disproportionate drop in the Black farm population since 1920 include the marginal economic situation of this group and the consequent difficulty in sustaining a farm operation, the older age structure of Black farm operators, and the smaller acreage and sales of Black operated farms.<sup>2</sup> These conclusions are based on data

<sup>2</sup> See also U.S. Commission on Civil Rights, *The Decline of Black Farming in America* (Washington, D.C.: 1982).

**Table C. Farm and Nonfarm Population, by Race and Spanish Origin: 1982**

(Numbers in thousands)

Race	Total	Farm	Nonfarm	Percent distribution		
				Total	Farm	Nonfarm
All races.....	226,048	5,620	220,428	100.0	100.0	100.0
White.....	193,570	5,391	188,179	85.6	95.9	85.4
Black.....	26,764	179	26,585	11.8	3.2	12.1
Spanish origin <sup>2</sup> .....	14,210	130	14,080	6.3	2.3	6.4

<sup>1</sup> The total U.S. population figure here differs from that shown in table A because the latter refers to the total resident population, whereas this and other tables refer only to the civilian noninstitutional population.

<sup>2</sup> Persons of Spanish origin may be of any race.

Source: Current Population Survey five-quarter averages centered on April 1982.

from the 1978 Census of Agriculture and relate to farm operators rather than to the farm resident population.<sup>3</sup> However, income data for farm resident families from the Current

<sup>3</sup> Age of operator along with acreage and value of products sold by race of operator are available from the 1978 Census of Agriculture, Volume 1. Summary data from this source and unpublished special tabulations prepared for the Department of Agriculture are as follows.

Age, acres, and sales	Operators	
	Black	White
Percent of operators—		
Under 35 years.....	7.9	16.4
35 to 54 years.....	35.2	43.8
55 to 64 years.....	27.9	23.6
65 years and over.....	29.0	16.2
Percent of operators with farms—		
Under 50 acres.....	68.6	26.9
50 to 99 acres.....	18.7	15.6
100 to 179 acres.....	13.0	17.4
180 to 259 acres.....	4.2	9.9
260 acres and over.....	5.5	30.2
Percent of operators with agricultural sales—		
Under \$20,000.....	92.3	63.3
\$20,000 to \$99,999.....	6.8	27.6
\$100,000 and over.....	0.9	9.2

Population Survey (CPS) yield a similar picture. The 1978 median income of Black farm families was about two-fifths that of White farm families (table 14), and in 1981, the proportion of Black farm residents in poverty was about double that for White farm residents (table 13).

**Age and sex.** The farm population has an older age structure and thus a higher median age than the nonfarm population. In 1982, the median age of farm residents was about 35 years as compared with 30 years for the nonfarm population (table 4). The farm population had a similar proportion of children and teenagers as the nonfarm population, a lower proportion of young adults (20 to 34 years), and higher proportions of persons 35 to 64 years old and of elderly persons.

At one time, the farm population was a young population, with high proportions of young adults and children. In 1920, 70 percent of farm residents were under 35 years old compared with 64 percent of nonfarm residents. By 1960, however, these proportions were 55 percent and 61 percent, respectively. This change resulted in part from the heavy outmigration of young adults from farms during the 1940's and 1950's. In 1982, 50 percent of farm residents were under age 35, compared with 57 percent of nonfarm residents.



Overall, there were 108 males on farms for every 100 females in 1982, a considerably higher ratio than the 93 males per 100 females found in the nonfarm population. By age, however, the ratio of men to women in the farm population, in comparison to the nonfarm population, was significantly higher only among those 65 and over when women have the highest probability of being widowed. The relatively high sex ratio for farm residents at this age probably reflects a tendency toward outmigration or cessation of farming activities upon the loss of a spouse for these older former farm resident women.

**Marital status.** A higher proportion of farm residents, in comparison with nonfarm residents, were married and living with a spouse, and a lower proportion were separated, divorced, or widowed. In 1982, 70 percent of farm women 15 years of age and older were married and living with their husbands, compared with 54 percent of comparable nonfarm women (figure 2 and table 5). Among men 15 and over, 68 percent of those living on farms and 60 percent of those living in nonfarm areas were married with wives present.

The greater likelihood of being married was characteristic of all but the youngest age category of farm women. Those 15 to 24 years old were just as likely to be married as their nonfarm counterparts (table 6). At all other ages, however, the proportion married and living with a husband was significantly higher for farm women. At ages 55 to 64 years, for example, 89 percent of farm women were married with husbands present, compared with only 67 percent of nonfarm women. The proportions of farm and nonfarm men who were married with wives present were significantly

different until age 65. For the 65-and-over age category, there was some evidence that farm men were more likely to be married than nonfarm men.

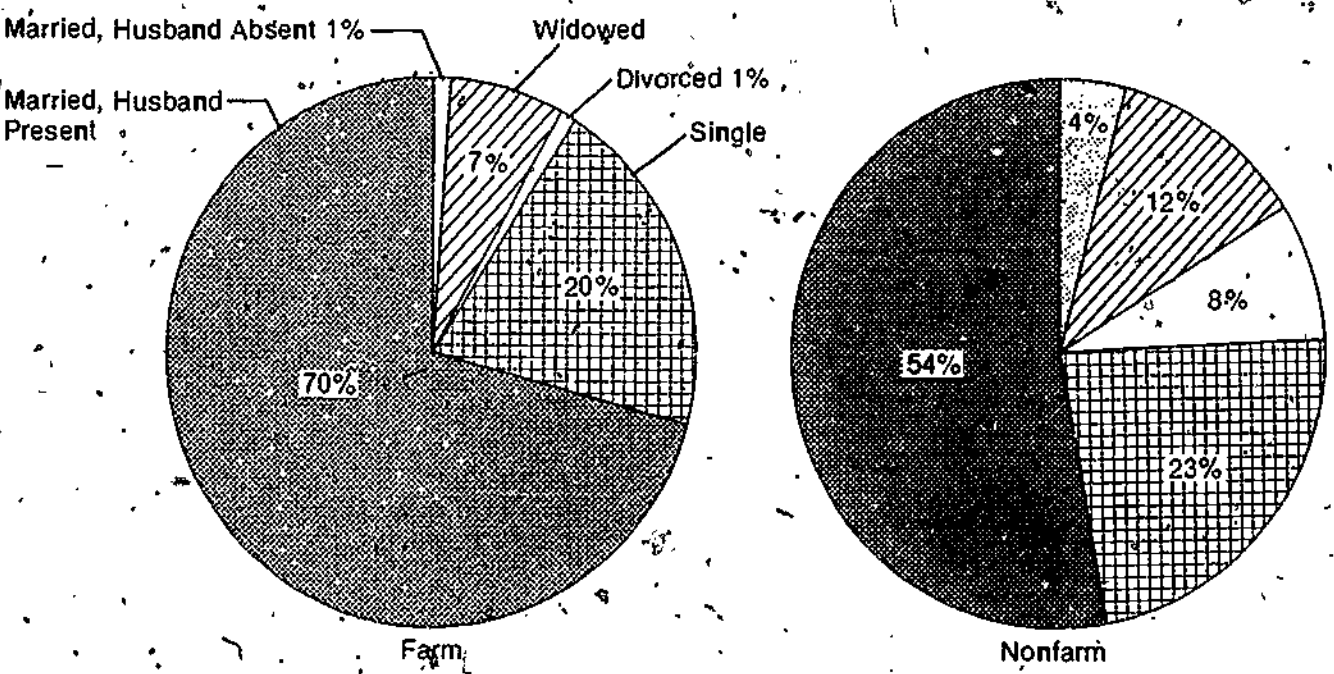
About 1.4 percent of farm women 15 years and over were currently divorced in 1982, a figure about one-fifth that of the 7.6 percent reported by corresponding nonfarm women. The proportion divorced for farm men 15 years and over (2.3 percent) was about one-half that for nonfarm men (5.6 percent).

**Families.** Although the average size of farm and nonfarm families was not significantly different in 1982—about 3.3 persons for each residence group—their composition varied (table 7). Data from the March 1982 CPS indicate that farm families were more likely than nonfarm families to include a married couple (93 versus 81 percent) and less likely to have a female householder (no husband present). The proportion of farm families maintained by a woman (4.3 percent) was about one-third that of nonfarm families (15.7 percent). There was no significant difference in the small proportions of farm and nonfarm families who were maintained by a male householder (no wife present): 2.9 and 3.3 percent, respectively.

Large families (those with six or more persons) have become rarer in both the farm and nonfarm populations in recent years, but the decline has been more pronounced for farm families. In fact, there was no significant difference in 1982 in the proportion of large families within the farm and nonfarm populations. In 1975, large families constituted 13.1 percent of all farm families; by 1982, the proportion of farm families that were large had been reduced by half to

Figure 2

**Marital Status of Farm and Nonfarm Women 15 Years Old and Over: March 1982**



6.4 percent. For nonfarm families, the proportion with six or more persons dropped from 9.6 to 6.5 percent over the 7-year period.

**Fertility.** The fertility of farm women is higher than that of nonfarm women (table D). Data for June 1982 indicate that the average number of children born to farm women 18 to 44 years old (1,805 per 1,000 women) was significantly higher than the average born to nonfarm women of comparable age (1,417 per 1,000 women).

Total lifetime expected births were also higher for farm than nonfarm women. The average number of lifetime births expected by farm women 18 to 34 years old was 2,373 per 1,000 women, compared with an expected 2,017 per 1,000 nonfarm women.

**Table D. Fertility Characteristics of Farm and Nonfarm Women: June 1982**

Characteristic	Total	Farm	Nonfarm
<b>CHILDREN EVER BORN PER 1,000 WOMEN</b>			
Total, 18 to 44 years...	1,424	1,805	1,417
18 to 24 years.....	407	386	407
25 to 29 years.....	1,176	1,394	1,173
30 to 34 years.....	1,732	2,328	1,723
35 to 39 years.....	2,205	2,757	2,193
40 to 44 years.....	2,780	3,276	2,770
<b>WOMEN 18 TO 34 YEARS<sup>1</sup></b>			
Births to date per 1,000 women	1,086	1,283	1,083
Future births expected per 1,000 women.....	937	1,090	934
Lifetime births expected per 1,000 women.....	2,023	2,373	2,017

<sup>1</sup>Data limited to women reporting on birth expectations.

Source: June 1982 Current Population Survey.

## ECONOMIC CHARACTERISTICS OF THE FARM POPULATION

**Labor force participation.** For the five quarters centered on April 1982, an average of 2.9 million farm residents 14 years old and over were in the labor force, either employed or seeking work (table E). The labor force participation rate for farm residents (65 percent) was somewhat higher than the rate for nonfarm residents (62 percent). This difference results from variations in rates by sex: Farm resident men had a higher rate of labor force participation than nonfarm men, but the rate for farm women was below that for nonfarm women, even though the labor force participation of farm women increased from 30 to 47 percent between 1960 and 1982.<sup>4</sup> About 51 percent of all nonfarm women 14 years old and over were either working or looking for work in 1982.

Persons living on farms in the combined Northern and Western States were more likely to be in the labor force than

were Southern farm residents. (This regional pattern also exists in the nonfarm population.) Among persons 14 years old and over living on farms in the North and West, 67 percent were either working or looking for work in 1982; in comparison, persons on farms in the South had a labor force participation rate of 60 percent (table 8).

Labor force participation was significantly higher among White farm residents than among Black farm residents. In 1982, the labor force rates for these two racial groups were 65 percent and 52 percent, respectively (table 9).

**Unemployment.** The rate of unemployment—the proportion of the civilian labor force currently without a job and looking for work—is relatively low in the farm population. In 1982, during the peak of the recent business recession, only 3.6 percent of the labor force living on farms was unemployed, when the comparable rate for the nonfarm population was 9.5 percent (table E). The frequency of agricultural workers holding two or more jobs is thought to contribute to their lower unemployment rate. For example, when a farm operator with dual employment loses a nonfarm job, that person is still counted as employed on the basis of farm work. In 1980, 835,000 multiple job holders, about one-sixth of the national total, had at least one job in agriculture. Of this group, 63 percent combined a primary job as a non-agricultural wage and salary worker with self-employment in agriculture—mainly on their own farms—as a secondary job.<sup>5</sup>

Within the farm resident labor force, unemployment was much higher among Blacks than among Whites; the rates of

<sup>4</sup>Taylor, Daniel E. and Edward S. Sekscensk. "Workers on Long Schedules, Single and Multiple Jobholders," *Monthly Labor Review*, Vol. 105, No. 5, pp. 47-66. Bureau of Labor Statistics, U.S. Department of Labor, May 1982.

**Table E. Employment Status of the Farm and Nonfarm Population 14 Years Old and Over, by Sex: 1982**

(Numbers in thousands)

Sex and employment status	Farm	Nonfarm
<b>Both sexes.....</b>	4,524	174,044
In labor force.....	2,924	107,899
Percent of total.....	64.6	62.0
Employed.....	2,818	97,623
Unemployed.....	105	10,276
Percent of labor force.....	3.6	9.5
Not in labor force.....	1,600	66,144
<b>Male.....</b>	2,352	82,403
In labor force.....	1,899	60,970
Percent of total.....	80.7	74.0
Employed.....	1,838	55,972
Unemployed.....	61	5,998
Percent of labor force.....	3.2	9.3
Not in labor force.....	453	21,433
<b>Female.....</b>	2,172	91,641
In labor force.....	1,025	46,929
Percent of total.....	47.2	51.2
Employed.....	980	42,551
Unemployed.....	45	4,378
Percent of labor force.....	4.4	9.3
Not in labor force.....	1,147	44,711

Source: Current Population Survey five-quarter averages centered on April 1982.

<sup>4</sup>See U.S. Bureau of the Census, Current Population Reports, Series P-27, No. 29, *Estimates of the Rural-Farm Population of the United States: April 1960*.

unemployment in 1982 for these two racial groups were 20.0 percent and 3.1 percent, respectively (table 9). The comparable nonfarm rates (not shown in the tables) were 18.5 percent for Blacks and 8.4 percent for Whites. Because of sampling variability, the Black rates of unemployment were not significantly different by residence, whereas the rate for Whites was lower for farm residents.

**Agricultural and nonagricultural employment.** In 1982, 1.6 million, or 57 percent of the employed farm resident labor force worked solely, or primarily in the case of multiple jobholders, in agriculture (table 8). Even though farm residents are more likely to be employed in agriculture than in nonagricultural industries, they do not represent the larger share of total agricultural employment. Only 46 percent of the average 3.5 million persons employed in agriculture lived on farms in 1982 (table F). The remaining 54 percent lived in nonfarm areas. In the 1930 census (the first year for which such data are available) persons living on farms constituted 87 percent of all agricultural workers. This proportion dropped to 75 percent in 1960 and 63 percent in 1970.<sup>6</sup>

The decline in the proportion of agricultural workers who are farm residents is largely due to the general trend among farm wage workers to commute from nonfarm residences to farm jobs. In 1982, about 8 out of 10 wage and salary agricultural workers did not reside on farms. Another factor is that agricultural employment as a category includes more than farmers and farm laborers. These two occupations dominate the industry, but persons working on farms in occupations such as truck driver, bookkeeper, and mechanic are also included. Additionally, persons employed in activities such as veterinary services, kennels, and landscaping are

classified as agricultural workers. Many of these peripheral agricultural activities are performed in nonfarm settings.

Although farm residents overall are more likely to be employed in agriculture than in nonagricultural industries, there are significant differences by sex (table 8). In 1982, farm men were most often employed in agriculture (89 percent), whereas farm women most often had a nonagricultural job (86 percent) (table 8). The large proportion of farm women engaged in nonagricultural work reflects, at least in part, the importance of supplemental nonfarm income to farm families. Data on income of the average farm operator family reveal that, in 1981, two-thirds of their total income came from nonfarm sources.<sup>7</sup>

Southern farm residents are more likely to have nonfarm jobs as their principal occupation than are farm residents in the combined Northern and Western States. In 1982, about half of the employed Southern farm resident labor force were primarily engaged in nonagricultural pursuits; among residents on farms outside the South, only 38 percent were so employed. Data on principal occupation of farm operators also reflect this regional disparity. According to the 1978 agricultural census, 56 percent of all Southern farm operators spent half or more of their worktime at occupations other than farming. In contrast, for the combined Northern and Western States, only 40 percent indicated that farming was not their principal occupation.<sup>8</sup>

About one-half of all farm residents employed in nonagricultural industries were in services and manufacturing (table 12). There was, however, a significant difference in type of employment by sex. Farm women were more likely to be employed in service industries; among farm men, manufacturing was the leading nonfarm industry.

**Class of worker.** In 1982, there was a difference in the class of worker distribution among agricultural workers by resi-

<sup>6</sup> According to census reports, the number of workers employed in agriculture in 1930 was 10,482,223, of whom 9,141,362 were farm residents. See "United States Summary," Vol. III, *Fifteenth Census of the United States: 1930*. Based on CPS estimates, 4,025,000 of the 5,395,000 agricultural workers in 1960 lived on farms; in 1970, 2,333,000 of the total 3,696,000 agricultural workers lived on farms. See Current Population Reports, Series P-27, No. 42, *Farm Population of the United States: 1970*.

<sup>7</sup> U.S. Department of Agriculture, *Economic Indicators of the Farm Sector: Income and Balance Sheet Statistics, 1981*, ECIFS 1-1, Economic Research Service, August 1982.

<sup>8</sup> U.S. Bureau of the Census, *1978 Census of Agriculture, Vol. 1, Summary and State Data, Part 51*, July 1981.

**Table F. Farm and Nonfarm Residents 14 Years Old and Over Employed in Agriculture, by Class of Worker and Sex: 1982**

(Numbers in thousands)

Class of worker	Both sexes	Male	Female	Percent distribution		
				Both sexes	Male	Female
Total agricultural workers.....	3,534	2,834	700	100.0	100.0	100.0
Self-employed workers.....	1,661	1,455	206	47.0	51.3	29.4
Wage and salary workers.....	1,561	1,249	312	44.2	44.1	44.6
Unpaid family workers.....	312	130	182	8.8	4.6	26.0
Farm resident agricultural workers.....	1,608	1,270	338	100.0	100.0	100.0
Self-employed workers.....	1,023	891	132	63.6	70.2	39.1
Wage and salary workers.....	342	281	60	21.3	22.1	17.8
Unpaid family workers.....	243	98	145	15.1	7.7	42.9
Nonfarm resident agricultural workers.....	1,926	1,564	362	100.0	100.0	100.0
Self-employed workers.....	638	564	74	33.1	36.1	20.4
Wage and salary workers.....	1,220	968	252	63.3	61.8	69.6
Unpaid family workers.....	69	32	37	3.6	2.0	10.2

Source: Current Population Survey five-quarter averages centered on April 1982.



dence (table F). Self-employment was the major class of work (64 percent) among agricultural workers who lived on the farm. In contrast, among nonfarm resident agricultural workers, only 33 percent were self-employed, and the largest group—63 percent—worked for wages or salary.

The overall dominance of self-employment in agriculture as the leading class of work applied to farm resident men only (table 10). In 1982, women living on farms and working in agriculture were just as likely to be unpaid family workers as to be self-employed. Both farm men and women primarily employed in nonagricultural industries were mainly wage and salary workers.

**Income and poverty status.** Data from the March 1982 CPS show that the median income of farm families continues to be substantially lower than that for nonfarm families. In 1981, the median income of farm and nonfarm families was \$17,082 and \$22,554, respectively (table 13). As illustrated in figure 3, farm families had a large concentration in the lower income levels. From 1980 to 1981, the income of farm families, after adjustment for inflation, was essentially

unchanged (table 14).<sup>9</sup> This differs from the 14.8 percent drop in real median income experienced by farm families during 1979-80.

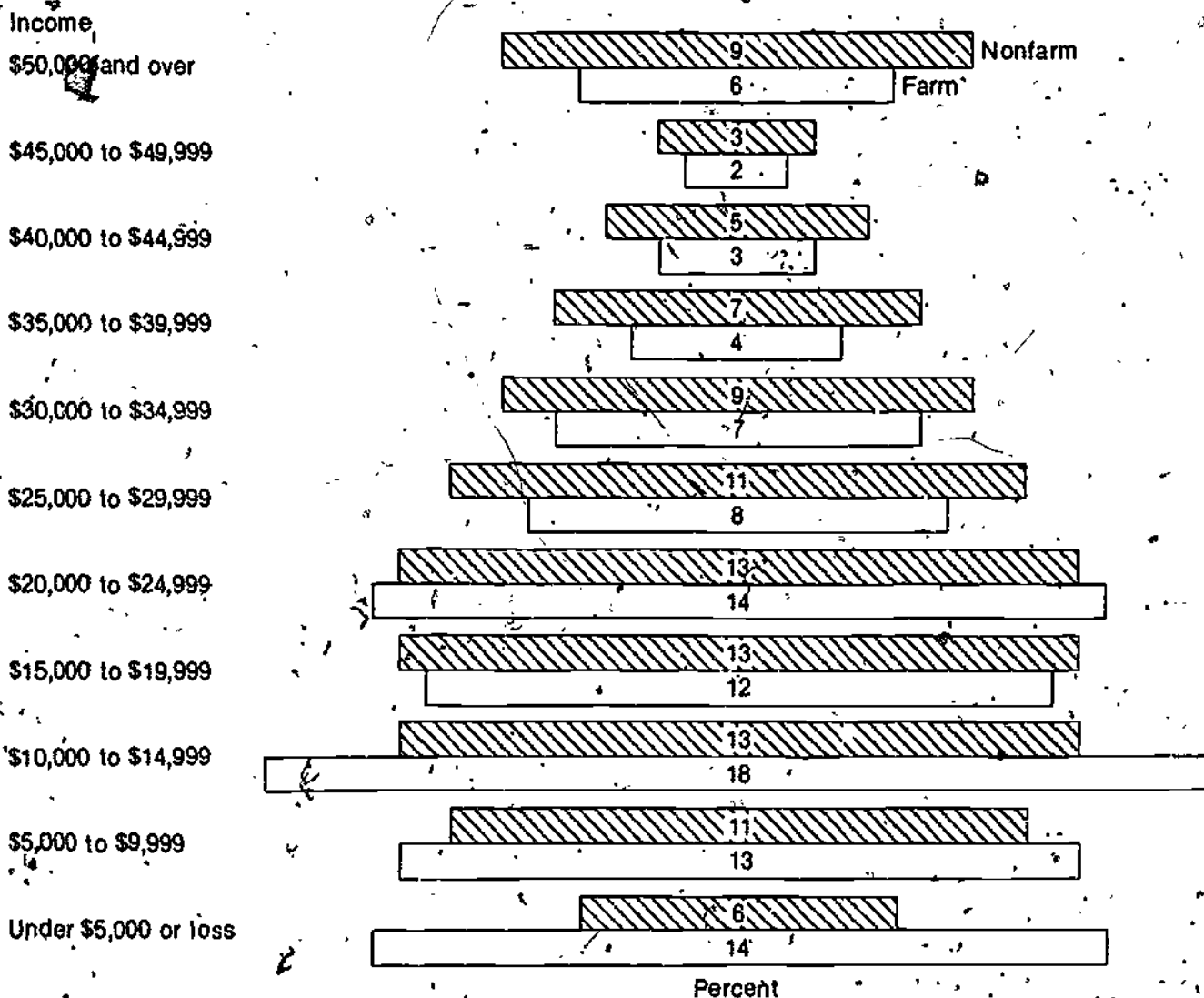
Farm families are also more likely to be in poverty than are nonfarm families. About one-fifth of farm families, but only one-tenth of nonfarm families, were below the poverty level in 1981.

It should be noted that income and poverty estimates cited in this report are based on money income alone and do not include the value of noncash benefits. Previous work by the Bureau has shown that accounting for benefits such as food stamps, subsidized school lunches, public housing, Medicaid, and Medicare would substantially reduce the estimated number of poor. In addition, employer contributions for pension and health plans and other fringe benefits are important sources of noncash income for many individuals. These elements should be considered when comparing income and poverty levels.

<sup>9</sup> See U.S. Bureau of the Census, *Current Population Reports, Series P-60, No. 134, Money Income and Poverty Status of Families and Persons in the United States: 1981*.

Figure 3

### Income Distribution of Farm and Nonfarm Families: 1981



## RELATED REPORTS

Comparable figures for 1981 appear in Current Population Reports, Series P-27, No. 55, *Farm Population of the United States: 1981*, and earlier reports were published annually beginning in 1961.

The 1982 five-quarter average data are not strictly comparable with data for earlier years because of the introduction of 1980 census population controls. Application of 1980-based population controls to April-centered five-quarter averages for 1981 raised the total farm population by

about 60,000. In 1978, a new farm definition was introduced into the data series; the effects are examined in detail in Series P-27, No. 52. In 1976, revisions were made in the processing procedure for determining farm-nonfarm residence of the rural population. The revisions lowered the total farm population by an estimated 130,000.

Although not fully comparable with the Current Population Survey, farm population figures for 1980 for States, counties, and selected places appear in 1980 Census of Population and Housing, PHC80-S2, *Advance Estimates of Social, Economic, and Housing Characteristics*.

Table 1. Total and Farm Population, by Race: 1920 to 1982

(Numbers in thousands)<sup>a</sup>

Year	White			Black		
	Total population	Farm population		Total population	Farm population	
		Number of persons	Percent of total		Number of persons	Percent of total
CURRENT FARM DEFINITION						
1982.....	193,570	5,391	2.8	26,764	179	0.7
1981.....	189,056	5,486	2.9	25,930	222	0.9
1980.....	187,633	5,714	3.0	25,502	242	0.9
1979.....	186,080	5,891	3.2	25,104	280	1.1
1978.....	184,806	6,064	3.3	24,757	349	1.4
PREVIOUS FARM DEFINITION						
1982.....	193,570	6,556	3.4	26,764	247	0.9
1981.....	189,056	6,564	3.5	25,930	278	1.1
1980.....	187,633	6,828	3.6	25,502	299	1.2
1979.....	186,080	7,111	3.8	25,104	360	1.4
1978.....	184,806	7,482	4.0	24,757	416	1.7
1970.....	174,641	8,775	5.0	23,972	849	3.5
1960.....	158,832	11,852	7.5	18,872	1,482	7.9
1950 <sup>1</sup> .....	134,942	19,715	14.6	15,042	3,167	21.1
1940 <sup>1</sup> .....	118,215	25,463	21.5	12,866	4,502	35.0
1930 <sup>1</sup> .....	110,287	25,226	22.9	11,891	4,681	39.4
1920 <sup>1</sup> .....	94,821	26,073	27.5	10,463	5,100	48.7

<sup>1</sup>Conterminous United States.

Source: Current Population Survey five-quarter averages centered on April for 1970 and later years; Census of Population: 1930-60 for 1960 and earlier years.

Table 2. Metropolitan and Nonmetropolitan Residence of the Farm and Nonfarm Population, by Race and Spanish Origin: 1982

(Numbers in thousands)

Race and residence <sup>a</sup>	Total	Farm	Nonfarm	Percent distribution		
				Total	Farm	Nonfarm
ALL RACES						
United States.....	1226,048	5,620	220,428	100.0	100.0	100.0
Inside SMSA's <sup>2</sup> .....	153,125	1,034	152,091	67.7	18.4	69.0
SMSA's of 1 million or more.....	86,413	246	86,166	38.2	4.4	39.1
SMSA's of less than 1 million.....	66,712	787	65,925	29.5	14.0	29.9
Outside SMSA's.....	72,924	4,586	68,337	32.3	81.6	31.0
WHITE						
United States.....	193,570	5,391	188,179	100.0	100.0	100.0
Inside SMSA's.....	128,076	997	127,080	66.2	18.5	67.5
SMSA's of 1 million or more.....	70,586	244	70,341	36.5	4.5	37.4
SMSA's of less than 1 million.....	57,491	752	56,738	29.7	13.9	30.2
Outside SMSA's.....	65,494	4,395	61,099	33.8	81.5	32.5
BLACK						
United States.....	26,764	179	26,585	100.0	100.0	100.0
Inside SMSA's.....	20,520	34	20,486	76.7	19.0	77.1
SMSA's of 1 million or more.....	12,973	2	12,970	48.5	1.1	48.8
SMSA's of less than 1 million.....	7,547	31	7,515	28.2	17.3	28.3
Outside SMSA's.....	5,244	145	6,099	23.3	81.0	22.9
SPANISH ORIGIN <sup>3</sup>						
United States.....	14,210	130	14,080	100.0	100.0	100.0
Inside SMSA's.....	12,041	43	11,999	84.7	33.1	85.2
SMSA's of 1 million or more.....	7,792	12	7,781	54.8	9.2	55.3
SMSA's of less than 1 million.....	4,248	31	4,218	29.9	23.8	30.0
Outside SMSA's.....	2,169	87	2,082	15.3	66.9	14.8

<sup>1</sup>The total U.S. population figure shown here differs from that shown in table A because the latter refers to the total resident population, whereas this and other tables refer only to the civilian noninstitutional population.<sup>2</sup>SMSA's refers to standard metropolitan statistical areas as designated in the 1970 census publications: see the section, "Definitions and Explanations."<sup>3</sup>Persons of Spanish origin may be of any race.

Source: Current Population Survey five-quarter averages centered on April 1982.



**Table 3. Farm Population, by Race, Spanish Origin, Age, and Sex: 1982 and 1980**

(Numbers in thousands. For meaning of symbols, see text)

Race and age	Both sexes		Male		Female		Percent distribution					
							Both sexes		Male		Female	
	1982	1980	1982	1980	1982	1980	1982	1980	1982	1980	1982	1980
All races.....	5,620	6,051	2,919	3,159	2,701	2,892	100.0	100.0	100.0	100.0	100.0	100.0
Under 14 years.....	1,096	1,146	567	598	529	548	19.5	18.9	19.4	18.9	19.6	18.9
14 years and over.....	4,524	4,905	2,352	2,561	2,172	2,344	80.5	81.1	80.6	81.1	80.4	81.1
White.....	5,391	5,714	2,799	2,988	2,592	2,726	100.0	100.0	100.0	100.0	100.0	100.0
Under 14 years.....	1,055	1,065	547	556	508	509	19.6	18.6	19.5	18.6	19.6	18.7
14 years and over.....	4,336	4,649	2,253	2,432	2,084	2,217	80.4	81.4	80.5	81.4	80.4	81.3
Black.....	179	242	93	120	86	123	100.0	100.0	100.0	100.0	100.0	100.0
Under 14 years.....	34	58	16	29	18	29	19.0	24.0	17.2	24.2	20.9	23.6
14 years and over.....	145	184	77	91	68	93	81.0	76.0	82.8	75.8	79.1	75.6
Spanish origin <sup>1</sup> .....	130	115	70	58	59	56	100.0	100.0	(B)	(B)	(B)	(B)
Under 14 years.....	40	44	19	19	20	24	30.8	38.3	(B)	(B)	(B)	(B)
14 years and over.....	90	71	51	39	39	32	69.2	61.7	(B)	(B)	(B)	(B)

<sup>1</sup>Persons of Spanish origin may be of any race.

Source: Current Population Survey five-quarter averages centered on April 1982 and April 1980.

**Table 4. Farm and Nonfarm Population, by Age and Sex: 1982**

(Numbers in thousands. For meaning of symbols, see text)

Age	Both sexes	Male	Female	Percent distribution		
				Both sexes	Male	Female
FARM						
All ages.....	5,620	2,919	2,701	100.0	100.0	100.0
Under 14 years.....	1,096	567	529	19.5	19.4	19.6
14 to 19 years.....	660	356	304	11.7	12.2	11.3
20 to 24 years.....	397	216	181	7.1	7.4	6.7
25 to 29 years.....	334	184	150	5.9	6.3	5.6
30 to 34 years.....	316	162	154	5.6	5.5	5.7
35 to 39 years.....	336	169	167	6.0	5.8	6.2
40 to 44 years.....	333	168	165	5.9	5.8	6.1
45 to 49 years.....	326	158	168	5.8	5.4	6.2
50 to 54 years.....	356	177	179	6.3	6.1	6.6
55 to 59 years.....	372	189	183	6.6	6.5	6.8
60 to 64 years.....	363	189	174	6.5	6.5	6.4
65 years and over.....	732	385	347	13.0	13.2	12.8
Median age.....years..	35.1	34.2	35.9	(X)	(X)	(X)
NONFARM						
All ages.....	220,428	106,107	114,321	100.0	100.0	100.0
Under 14 years.....	46,385	23,704	22,681	21.0	22.3	19.8
14 to 19 years.....	22,345	11,201	11,144	10.1	10.6	9.7
20 to 24 years.....	20,361	9,871	10,490	9.2	9.3	9.2
25 to 29 years.....	19,575	9,533	10,041	8.9	9.0	8.8
30 to 34 years.....	17,966	8,750	9,216	8.2	8.2	8.1
35 to 39 years.....	14,707	7,131	7,577	6.7	6.7	6.6
40 to 44 years.....	11,911	5,770	6,139	5.4	5.4	5.4
45 to 49 years.....	10,655	5,160	5,496	4.8	4.9	4.8
50 to 54 years.....	10,957	5,252	5,706	5.0	5.0	5.0
55 to 59 years.....	11,064	5,203	5,861	5.0	4.9	5.1
60 to 64 years.....	10,015	4,607	5,409	4.5	4.3	4.7
65 years and over.....	24,487	9,926	14,560	11.1	9.4	12.7
Median age.....years..	30.4	29.3	31.5	(X)	(X)	(X)

Source: Current Population Survey five-quarter averages centered on April 1982.

Table 5. Farm and Nonfarm Population, by Marital Status and Sex: March 1982

(Numbers in thousands. For meaning of symbols, see text)

Sex and marital status	All races			White			Black		
	Total	Farm	Nonfarm	Total	Farm	Nonfarm	Total	Farm	Nonfarm
Male, 15 years old and over.....	83,958	2,200	81,758	73,285	2,104	71,181	8,614	79	8,534
Single.....	24,912	576	24,335	20,604	541	20,063	3,549	29	3,520
Married, wife present.....	50,294	1,500	48,794	45,562	1,452	44,110	3,590	39	3,551
Married, wife absent.....	2,286	37	2,249	1,683	33	1,651	546	4	542
Separated.....	1,569	19	1,550	1,085	17	1,068	461	2	459
Other.....	717	17	699	599	16	583	85	1	83
Widowed.....	1,861	35	1,826	1,534	33	1,501	298	2	296
Divorced.....	4,605	51	4,554	3,902	46	3,856	631	5	625
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Single.....	29.7	26.2	29.8	28.1	25.7	28.2	41.2	36.7	41.2
Married, wife present.....	59.9	68.2	59.7	62.2	69.0	62.0	41.7	49.4	41.6
Married, wife absent.....	2.7	1.7	2.8	2.3	1.6	2.3	6.3	5.1	6.4
Separated.....	1.9	0.9	1.9	1.5	0.8	1.5	5.4	2.5	5.4
Other.....	0.9	0.8	0.9	0.8	0.8	0.8	1.0	1.3	1.0
Widowed.....	2.2	1.6	2.2	2.1	1.6	2.1	3.5	2.5	3.5
Divorced.....	5.5	2.3	5.6	5.3	2.2	5.4	7.3	6.3	7.3
Female, 15 years old and over.....	92,228	2,132	90,097	79,591	2,044	77,547	10,511	79	10,432
Single.....	20,753	429	20,324	16,554	394	16,160	3,686	32	3,653
Married, husband present.....	50,294	1,500	48,794	45,561	1,458	44,102	3,513	36	3,477
Married, husband absent.....	3,486	23	3,463	2,314	19	2,295	1,074	4	1,070
Separated.....	2,776	9	2,767	1,767	5	1,762	963	4	959
Other.....	710	14	696	547	14	533	111	2	111
Widowed.....	10,796	150	10,646	9,327	146	9,181	1,305	5	1,301
Divorced.....	6,899	29	6,870	5,836	28	5,808	932	1	931
Percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Single.....	22.5	20.1	22.6	20.8	19.3	20.8	35.1	40.5	35.0
Married, husband present.....	54.5	70.4	54.2	57.2	71.3	56.9	33.4	45.3	33.3
Married, husband absent.....	3.8	1.1	3.8	2.9	0.9	3.0	10.2	5.1	10.3
Separated.....	3.0	0.4	3.1	2.2	0.2	2.3	9.2	5.1	9.2
Other.....	0.8	0.7	0.8	0.7	0.7	0.7	1.1	-	1.1
Widowed.....	11.7	7.0	11.8	11.7	7.1	11.8	12.4	6.3	12.5
Divorced.....	7.5	1.4	7.6	7.3	1.4	7.5	8.9	1.3	8.9

Source: March 1982 Current population survey.

Table 6. Farm and Nonfarm Population, by Marital Status, Age, and Sex: March 1982

(Numbers in thousands. For meaning of symbols, see text)

Age and marital status	Male				Female			
	Farm		Nonfarm		Farm		Nonfarm	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
15 to 24 years.....	490	100.0	19,704	100.0	452	100.0	20,014	100.0
Single.....	430	87.8	16,617	84.3	341	75.4	14,354	71.7
Married, spouse present.....	46	9.4	2,695	13.7	97	21.5	4,717	23.6
Married, spouse absent.....	7	1.4	257	1.3	11	2.4	523	2.6
Separated.....	1	0.2	127	0.6	4	0.9	365	1.8
Other.....	5	1.0	130	0.7	6	1.3	158	0.8
Widowed.....	-	-	2	-	-	-	15	0.1
Divorced.....	6	1.2	133	0.7	3	0.7	403	2.0
25 to 34 years.....	358	100.0	18,731	100.0	344	100.0	19,269	100.0
Single.....	78	21.8	5,097	27.2	36	10.5	3,442	17.9
Married, spouse present.....	264	73.7	11,550	61.7	301	87.5	12,654	65.7
Married, spouse absent.....	6	1.7	642	3.4	4	1.2	1,076	5.3
Separated.....	5	1.4	471	2.5	4	1.2	873	4.5
Other.....	1	0.3	169	0.9	-	-	153	0.8
Widowed.....	-	-	14	0.1	-	-	118	0.6
Divorced.....	11	3.1	1,430	7.6	2	0.6	2,029	10.5
35 to 44 years.....	326	100.0	13,079	100.0	311	100.0	13,685	100.0
Single.....	21	6.4	1,165	8.9	13	4.2	776	5.7
Married, spouse present.....	285	87.4	10,162	77.7	286	92.0	10,027	73.3
Married, spouse absent.....	7	2.1	457	3.5	3	1.0	796	5.8
Separated.....	6	1.8	342	2.6	-	-	691	5.0
Other.....	2	0.6	116	0.9	3	1.0	105	0.8
Widowed.....	-	-	44	0.3	2	0.6	329	2.4
Divorced.....	13	4.0	1,252	9.6	7	2.3	1,756	12.8
45 to 54 years.....	313	100.0	10,448	100.0	339	100.0	11,222	100.0
Single.....	19	6.1	566	5.4	14	4.1	458	4.1
Married, spouse present.....	280	89.5	8,490	81.3	306	90.3	8,255	73.6
Married, spouse absent.....	4	1.3	359	3.4	1	0.3	508	4.5
Separated.....	3	1.0	254	2.4	-	-	422	3.8
Other.....	-	-	105	1.0	1	0.3	86	0.8
Widowed.....	5	1.6	161	1.5	12	3.5	777	6.9
Divorced.....	5	1.6	873	8.4	6	1.8	1,224	10.9
55 to 64 years.....	358	100.0	9,840	100.0	374	100.0	11,298	100.0
Single.....	12	3.4	459	4.7	10	2.7	475	4.2
Married, spouse present.....	329	91.9	8,191	83.2	333	89.0	7,573	67.0
Married, spouse absent.....	5	1.4	295	3.0	-	-	364	3.2
Separated.....	2	0.6	214	2.2	-	-	281	2.5
Other.....	2	0.6	81	0.8	-	-	84	0.7
Widowed.....	4	1.1	351	3.6	28	7.5	1,991	17.6
Divorced.....	8	2.2	545	5.5	3	0.8	895	7.9
65 years old and over.....	356	100.0	9,954	100.0	311	100.0	14,609	100.0
Single.....	16	4.5	432	4.3	15	4.8	819	5.6
Married, spouse present.....	298	83.7	7,707	77.4	177	56.9	5,567	38.1
Married, spouse absent.....	8	2.2	240	2.4	4	1.3	247	1.7
Separated.....	2	0.6	142	1.4	-	-	136	0.9
Other.....	6	1.7	98	1.0	4	1.3	110	0.8
Widowed.....	26	7.3	1,254	12.6	109	35.0	7,415	50.8
Divorced.....	9	2.5	321	3.2	7	2.3	562	3.8

Source: March 1982 Current Population Survey.

Table 7. Characteristics of Farm and Nonfarm Families, by Race: March 1982

(Numbers in thousands. For meaning of symbols, see text)

Characteristic	All races			White			Black		
	Total	Farm	Nonfarm	Total	Farm	Nonfarm	Total	Farm	Nonfarm
All families.....	61,019	1,598	59,421	53,269	1,547	51,722	6,413	43	6,370
TYPE OF FAMILY									
Married-couple families.....	49,630	1,483	48,147	45,007	1,437	43,569	3,535	38	3,497
Other families.....	11,389	116	11,274	8,262	110	8,152	2,878	6	2,872
Male householder.....	1,986	47	1,939	1,642	44	1,598	273	3	270
Female householder.....	9,403	69	9,335	6,620	66	6,554	2,605	3	2,602
SIZE OF FAMILY									
Two persons.....	24,426	664	23,761	22,072	648	21,424	2,024	14	2,009
Three persons.....	14,079	334	13,745	12,248	329	11,919	1,550	5	1,545
Four persons.....	12,594	310	12,284	10,998	306	10,692	1,264	3	1,261
Five persons.....	5,971	187	5,784	5,020	174	4,846	757	10	747
Six persons.....	2,409	60	2,349	1,900	57	1,843	406	3	403
Seven or more persons.....	1,539	42	1,498	1,031	34	997	412	7	404
Total persons.....	198,541	5,226	193,315	169,921	5,008	164,913	23,423	187	23,236
Average per family.....	3.25	3.27	3.25	3.19	3.24	3.19	3.65	(B)	3.65
MEMBERS UNDER 18									
All families.....	61,019	1,598	59,421	53,269	1,547	51,722	6,413	43	6,370
No members under 18.....	28,382	850	27,532	25,999	831	25,168	1,957	16	1,941
One member under 18.....	13,303	281	13,022	11,363	270	11,093	1,640	11	1,629
Two members under 18.....	12,009	289	11,720	10,251	281	9,970	1,416	5	1,411
Three or more members under 18.....	7,324	178	7,146	5,655	166	5,491	1,400	12	1,388
Total members under 18.....	61,855	1,467	60,389	50,713	1,395	49,318	9,219	63	9,156
Average per family.....	1.01	0.92	1.02	0.95	0.90	0.95	1.44	(B)	1.44
MEMBERS 18 TO 64									
All families.....	61,019	1,598	59,421	53,269	1,547	51,722	6,413	43	6,370
No members 18 to 64.....	5,260	159	5,101	4,902	155	4,746	317	3	314
One member 18 to 64.....	9,369	189	9,181	7,299	180	7,119	1,905	9	1,896
Two members 18 to 64.....	35,659	927	34,732	31,925	909	31,016	2,937	14	2,923
Three or more members 18 to 64.....	10,731	323	10,408	9,145	303	8,840	1,254	17	1,236
Total members 18 to 64.....	119,596	3,211	116,384	103,691	3,082	100,609	12,893	109	12,785
Average per family.....	1.96	2.01	1.96	1.93	1.99	1.95	2.01	(B)	2.01
MEMBERS 65 AND OVER									
All families.....	61,019	1,598	59,421	53,269	1,547	51,722	6,413	43	6,370
No members 65 and over.....	49,850	1,230	48,619	43,243	1,192	42,051	5,470	31	5,438
One member 65 and over.....	5,311	187	5,123	4,592	180	4,412	583	8	575
Two members 65 and over.....	5,734	176	5,558	5,319	172	5,147	354	4	350
Three or more members 65 and over.....	124	5	120	116	5	111	7	-	7
Total members 65 and over.....	17,090	548	16,542	15,517	531	14,986	1,311	15	1,296
Average per family.....	0.28	0.34	0.28	0.29	0.34	0.29	0.20	(B)	0.20
OWN CHILDREN UNDER 18									
All families.....	61,019	1,598	59,421	53,269	1,547	51,722	6,413	43	6,370
No own children under 18.....	30,007	881	29,126	27,033	858	26,175	2,495	19	2,476
With own children under 18.....	31,012	717	30,295	26,237	689	25,547	3,918	24	3,894
One own child under 18.....	12,730	268	12,462	10,963	258	10,705	1,480	10	1,470
Two own children under 18.....	11,612	287	11,326	9,982	274	9,709	1,294	10	1,284
Three own children under 18.....	4,544	108	4,436	3,696	105	3,591	695	3	692
Four or more own children under 18.....	2,126	55	2,071	1,596	53	1,543	450	2	448
Total own children under 18.....	57,892	1,397	56,496	48,431	1,346	47,085	7,704	42	7,662
Average per family.....	0.95	0.87	0.95	0.91	0.87	0.91	1.20	(B)	1.20
Average per family with children.....	1.87	1.95	1.86	1.85	1.95	1.84	1.97	(B)	1.97

Source: March 1982 Current Population Survey.

**Table 8. Employment Status of the Farm Population 14 Years Old and Over, by Sex, for 1982 and 1980, and Region, for 1982**

(Numbers in thousands)

Sex and employment status	United States		North and West, 1982	South, 1982	Percent distribution			
	1982	1980			United States		North and West, 1982	South, 1982
					1982	1980		
Both sexes.....	4,524	4,905	2,896	1,629	100.0	100.0	100.0	100.0
In labor force.....	2,924	3,139	1,945	979	64.6	64.0	67.2	60.1
Not in labor force.....	1,600	1,766	951	650	35.4	36.0	32.8	39.9
In labor force.....	2,924	3,139	1,945	979	100.0	100.0	100.0	100.0
Employed.....	2,818	3,057	1,885	933	96.4	97.4	96.9	95.3
Agriculture.....	1,608	1,642	1,161	446	55.0	52.3	59.7	45.6
Nonagricultural industries.....	1,210	1,415	724	487	41.4	45.1	37.2	49.7
Unemployed.....	105	82	60	46	3.6	2.6	3.1	4.7
Male.....	2,352	2,561	1,520	832	100.0	100.0	100.0	100.0
In labor force.....	1,899	2,066	1,257	643	80.7	80.7	82.7	77.3
Not in labor force.....	453	496	264	189	19.3	19.4	17.4	22.7
In labor force.....	1,899	2,066	1,257	643	100.0	100.0	100.0	100.0
Employed.....	1,838	2,028	1,221	617	96.8	98.2	97.1	96.0
Agriculture.....	1,270	1,307	898	371	66.9	63.3	71.4	57.7
Nonagricultural industries.....	568	720	323	246	29.9	34.8	25.7	38.3
Unemployed.....	61	38	36	25	3.2	1.8	2.9	3.9
Female.....	2,172	2,344	1,376	797	100.0	100.0	100.0	100.0
In labor force.....	1,025	1,073	688	336	47.2	45.8	50.0	42.2
Not in labor force.....	1,147	1,271	687	461	52.8	54.2	49.9	57.8
In labor force.....	1,025	1,073	688	336	100.0	100.0	100.0	100.0
Employed.....	980	1,029	664	316	95.6	95.9	96.5	94.0
Agriculture.....	338	334	263	75	33.0	31.1	38.2	22.3
Nonagricultural industries.....	642	695	401	241	62.6	64.8	58.3	71.7
Unemployed.....	45	44	24	21	4.4	4.1	3.5	6.3

Source: Current Population Survey five-quarter averages centered on April 1982 and April 1980.

**Table 8. Employment Status of the Farm Population 14 Years Old and Over, by Race and Sex, for Regions: 1982**

(Numbers in thousands. For meaning of symbols, see text)

Race, sex, and employment status	United States	North and West	South	Percent distribution		
				United States	North and West	South
WHITE						
Both sexes.....	4,336	2,864	1,472	100.0	100.0	100.0
In labor force.....	2,824	1,927	897	65.1	67.3	60.9
Not in labor force.....	1,512	938	575	34.9	32.8	39.1
In labor force.....	2,824	1,927	897	100.0	100.0	100.0
Employed.....	2,736	1,870	866	96.9	97.0	96.5
Agriculture.....	1,559	1,153	407	55.2	59.8	45.4
Nonagricultural industries.....	1,176	716	460	41.6	37.2	51.3
Unemployed.....	88	58	30	3.1	3.0	3.3
Male.....	2,253	1,504	748	100.0	100.0	100.0
In labor force.....	1,831	1,247	585	81.3	82.9	78.2
Not in labor force.....	421	258	163	18.7	17.2	21.8
In labor force.....	1,831	1,247	585	100.0	100.0	100.0
Employed.....	1,780	1,211	569	97.2	97.1	97.3
Agriculture.....	1,228	893	334	67.1	71.6	57.1
Nonagricultural industries.....	552	319	234	30.1	25.6	40.0
Unemployed.....	51	34	17	2.8	2.7	2.9
Female.....	2,084	1,360	724	100.0	100.0	100.0
In labor force.....	993	680	312	47.6	50.0	43.1
Not in labor force.....	1,091	680	412	52.4	50.0	56.9
In labor force.....	993	680	312	100.0	100.0	100.0
Employed.....	956	657	298	96.3	96.6	95.5
Agriculture.....	332	260	72	33.4	38.2	23.1
Nonagricultural industries.....	624	398	226	62.8	58.5	72.4
Unemployed.....	37	23	14	3.7	3.4	4.5
BLACK						
Both sexes.....	145	-	144	100.0	(B)	100.0
In labor force.....	75	-	74	51.7	(B)	51.4
Not in labor force.....	70	-	70	48.3	(B)	48.6
In labor force.....	75	-	74	100.0	(B)	(B)
Employed.....	59	-	59	78.7	(B)	(B)
Agriculture.....	36	-	36	48.0	(B)	(B)
Nonagricultural industries.....	23	-	23	30.7	(B)	(B)
Unemployed.....	15	-	15	20.0	(B)	(B)
Male.....	77	-	77	100.0	(B)	100.0
In labor force.....	52	-	52	67.5	(B)	67.5
Not in labor force.....	24	-	24	31.2	(B)	31.2
In labor force.....	52	-	52	(B)	(B)	(B)
Employed.....	44	-	44	(B)	(B)	(B)
Agriculture.....	34	-	34	(B)	(B)	(B)
Nonagricultural industries.....	10	-	10	(B)	(B)	(B)
Unemployed.....	8	-	8	(B)	(B)	(B)
Female.....	68	-	68	(B)	(B)	(B)
In labor force.....	22	-	22	(B)	(B)	(B)
Not in labor force.....	46	-	46	(B)	(B)	(B)
In labor force.....	22	-	22	(B)	(B)	(B)
Employed.....	15	-	15	(B)	(B)	(B)
Agriculture.....	2	-	2	(B)	(B)	(B)
Nonagricultural industries.....	13	-	13	(B)	(B)	(B)
Unemployed.....	7	-	7	(B)	(B)	(B)

Source: Current Population Survey five-quarter averages centered on April 1982.



Table 10. Farm Residents 14 Years Old and Over Employed in Agriculture and Nonagricultural Industries, by Class of Worker and Sex, for 1982 and 1980, and Region, for 1982

(Numbers in thousands)

Sex and class of worker	United States		North and West, 1982	South, 1982	Percent distribution			
	1982	1980			United States		North and West, 1982	South, 1982
					1982	1980		
<b>TOTAL WORKERS</b>								
Both sexes.....	2,818	3,057	1,885	993	100.0	100.0	100.0	100.0
Self-employed workers.....	1,151	1,195	820	331	40.8	39.1	43.5	35.5
Wage and salary workers.....	1,411	1,564	864	547	50.1	51.2	45.8	58.6
Unpaid family workers.....	257	297	201	55	9.1	9.7	10.7	5.9
Male.....	1,838	2,028	1,221	617	100.0	100.0	100.0	100.0
Self-employed workers.....	961	1,033	687	273	52.3	50.9	56.3	44.2
Wage and salary workers.....	775	889	456	319	42.2	43.8	37.3	51.7
Unpaid family workers.....	102	105	78	25	5.5	5.2	6.4	4.1
Female.....	980	1,029	664	316	100.0	100.0	100.0	100.0
Self-employed workers.....	190	162	133	57	19.4	15.7	20.0	18.0
Wage and salary workers.....	636	675	408	228	64.9	65.6	61.4	72.2
Unpaid family workers.....	154	192	124	30	15.7	18.7	18.7	9.5
<b>TOTAL AGRICULTURAL WORKERS</b>								
Both sexes.....	1,608	1,642	1,161	446	100.0	100.0	100.0	100.0
Self-employed workers.....	1,023	1,034	743	280	63.6	63.0	64.0	62.8
Wage and salary workers.....	342	326	227	115	21.3	19.9	19.6	25.8
Unpaid family workers.....	243	282	191	51	15.1	17.2	16.5	11.4
Male.....	1,270	1,307	898	371	100.0	100.0	100.0	100.0
Self-employed workers.....	891	930	645	246	70.2	71.2	71.8	66.3
Wage and salary workers.....	281	274	180	102	22.1	21.0	20.0	27.5
Unpaid family workers.....	98	104	74	24	7.7	8.0	8.2	6.5
Female.....	338	334	263	75	100.0	100.0	100.0	100.0
Self-employed workers.....	132	105	98	34	39.1	31.4	37.3	45.3
Wage and salary workers.....	60	52	48	13	17.8	15.6	18.3	17.3
Unpaid family workers.....	145	178	118	27	42.9	53.3	44.9	36.0
<b>TOTAL NONAGRICULTURAL WORKERS</b>								
Both sexes.....	1,210	1,415	724	487	100.0	100.0	100.0	100.0
Self-employed workers.....	128	161	77	51	10.6	11.4	10.6	10.5
Wage and salary workers.....	1,069	1,239	636	433	88.3	87.6	87.8	88.9
Unpaid family workers.....	13	16	10	4	1.1	1.1	1.4	0.8
Male.....	568	720	323	246	100.0	100.0	100.0	100.0
Self-employed workers.....	70	103	42	28	12.3	14.3	13.0	11.4
Wage and salary workers.....	494	615	276	217	87.0	85.4	85.4	88.2
Unpaid family workers.....	4	2	3	1	0.7	0.3	0.9	0.4
Female.....	642	695	401	241	100.0	100.0	100.0	100.0
Self-employed workers.....	58	58	35	23	9.0	8.3	8.7	9.5
Wage and salary workers.....	575	623	360	213	89.6	89.6	89.8	89.2
Unpaid family workers.....	9	14	6	3	1.4	2.0	1.5	1.2

Source: Current Population Survey five-quarter averages centered on April 1982 and April 1980.

**Table 11. Farm Residents 14 Years Old and Over Employed in Agriculture and Nonagricultural Industries, by Class of Worker, Race, and Sex, for Regions: 1982**

(Numbers in thousands. For meaning of symbols, see text)

Race, sex, and class of worker	Agricultural workers			Nonagricultural workers			Percent distribution					
							Agricultural workers			Nonagricultural workers		
	United States	North and West	South	United States	North and West	South	United States	North and West	South	United States	North and West	South
<b>WHITE</b>												
Both sexes.....	1,559	1,153	407	1,176	716	460	100.0	100.0	100.0	100.0	100.0	100.0
Self-employed workers.....	1,011	737	274	126	76	50	64.8	63.9	67.3	10.7	10.6	10.9
Wage and salary workers.....	307	225	82	1,037	630	407	19.7	19.5	20.1	88.2	88.0	88.5
Unpaid family workers.....	242	191	51	13	9	4	15.5	16.6	12.5	1.1	1.3	0.9
Male.....	1,228	893	334	552	319	234	100.0	100.0	100.0	100.0	100.0	100.0
Self-employed workers.....	881	642	240	70	42	28	71.7	71.9	71.9	12.7	13.2	12.0
Wage and salary workers.....	249	178	71	478	272	206	20.3	19.9	21.3	86.6	85.3	88.0
Unpaid family workers.....	97	74	24	4	3	1	7.9	8.3	7.2	0.7	0.9	0.4
Female.....	332	260	72	624	398	226	100.0	100.0	(B)	100.0	100.0	100.0
Self-employed workers.....	129	96	34	57	34	22	38.5	36.9	(B)	9.1	8.5	9.7
Wage and salary workers.....	58	47	11	559	358	201	17.5	18.1	(B)	89.6	89.9	88.9
Unpaid family workers.....	144	118	27	9	6	3	43.4	45.4	(B)	1.4	1.5	1.3
<b>BLACK</b>												
Both sexes.....	36	-	36	23	-	23	(B)	(B)	(B)	(B)	(B)	(B)
Self-employed workers.....	4	-	4	1	-	1	(B)	(B)	(B)	(B)	(B)	(B)
Wage and salary workers.....	32	-	32	22	-	22	(B)	(B)	(B)	(B)	(B)	(B)
Unpaid family workers.....	-	-	-	-	-	-	(B)	(B)	(B)	(B)	(B)	(B)
Male.....	34	-	34	10	-	10	(B)	(B)	(B)	(B)	(B)	(B)
Self-employed workers.....	4	-	4	-	-	-	(B)	(B)	(B)	(B)	(B)	(B)
Wage and salary workers.....	30	-	30	10	-	10	(B)	(B)	(B)	(B)	(B)	(B)
Unpaid family workers.....	-	-	-	-	-	-	(B)	(B)	(B)	(B)	(B)	(B)
Female.....	2	-	2	13	-	13	(B)	(B)	(B)	(B)	(B)	(B)
Self-employed workers.....	-	-	-	1	-	1	(B)	(B)	(B)	(B)	(B)	(B)
Wage and salary workers.....	2	-	2	12	-	12	(B)	(B)	(B)	(B)	(B)	(B)
Unpaid family workers.....	-	-	-	-	-	-	(B)	(B)	(B)	(B)	(B)	(B)

Source: Current Population Survey five-quarter averages centered on April 1982.

Table 12. Industry of Employed Farm Residents, by Sex, for Regions: 1982

(Numbers in thousands. For meaning of symbols, see text)

Sex and industry	United States	North and West	South	Percent distribution		
				United States	North and West	South
<b>BOTH SEXES</b>						
Total employed, 14 years old and over.....	2,816	1,663	933	100.0	100.0	100.0
Agriculture.....	1,608	1,161	446	57.1	61.5	47.8
Nonagricultural industries.....	1,210	724	487	42.9	38.4	52.2
Nonagricultural industries.....	1,210	724	487	100.0	100.0	100.0
Mining.....	17	8	8	1.4	1.1	1.6
Construction.....	106	56	48	8.8	8.0	9.9
Manufacturing.....	258	136	122	21.3	18.8	25.1
Transportation, communications, and other public utilities.....	73	44	29	6.0	6.1	6.0
Wholesale trade.....	44	26	16	3.6	3.9	3.3
Retail trade.....	212	134	78	17.5	18.5	16.0
Finance, insurance, and real estate.....	54	35	18	4.5	4.8	3.7
Service industries.....	384	246	139	31.7	34.0	28.5
Public administration.....	62	33	29	5.1	4.6	6.0
<b>MALE</b>						
Total employed, 14 years old and over.....	1,838	1,221	617	100.0	100.0	100.0
Agriculture.....	1,270	898	371	69.1	73.5	60.1
Nonagricultural industries.....	568	323	246	30.9	26.5	39.9
Nonagricultural industries.....	568	323	246	100.0	100.0	100.0
Mining.....	15	7	6	2.6	2.2	3.3
Construction.....	94	52	42	16.5	16.1	17.1
Manufacturing.....	163	89	74	28.7	27.6	30.1
Transportation, communications, and other public utilities.....	46	26	22	8.5	8.0	8.9
Wholesale trade.....	31	19	12	5.5	5.9	4.9
Retail trade.....	78	46	31	13.7	14.2	12.6
Finance, insurance, and real estate.....	14	9	4	2.5	2.8	1.6
Service industries.....	91	57	35	16.0	17.6	14.2
Public administration.....	35	16	19	6.2	5.0	7.7
<b>FEMALE</b>						
Total employed, 14 years old and over.....	980	664	316	100.0	100.0	100.0
Agriculture.....	338	263	75	34.5	39.6	23.7
Nonagricultural industries.....	642	401	241	65.5	60.4	76.3
Nonagricultural industries.....	642	401	241	100.0	100.0	100.0
Mining.....	2	1	-	0.3	0.2	-
Construction.....	12	6	6	1.9	1.5	2.5
Manufacturing.....	95	47	48	14.8	11.7	19.9
Transportation, communications, and other public utilities.....	25	18	8	3.9	4.5	3.3
Wholesale trade.....	13	9	4	2.0	2.2	1.7
Retail trade.....	135	88	47	21.0	21.9	19.5
Finance, insurance, and real estate.....	40	27	14	6.2	6.7	5.8
Service industries.....	293	189	104	45.6	47.1	43.2
Public administration.....	28	17	11	4.4	4.2	4.6

Source: Current Population Survey five-quarter averages centered on April 1982.

Table 13. Income and Poverty Status of Farm and Nonfarm Families, by Race of Householder: 1981

(Families as of March 1982. For meaning of symbols, see text)

Characteristic	All races			White			Black		
	Total	Farm	Nonfarm	Total	Farm	Nonfarm	Total	Farm	Nonfarm
Total families.....thousands..	61,019	1,598	59,421	53,269	1,547	51,722	6,413	43	6,370
Percent of families by 1981 income.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(B)	100.0
Under \$2,500 or less.....	2.1	9.4	1.9	1.7	9.7	1.5	5.2	(B)	5.2
\$2,500 to \$4,999.....	3.7	4.3	3.7	2.8	3.9	2.7	11.5	(B)	11.4
\$5,000 to \$7,499.....	5.5	6.3	5.5	4.7	6.2	4.6	12.2	(B)	12.2
\$7,500 to \$9,999.....	6.0	7.0	5.9	5.6	6.9	5.5	9.4	(B)	9.4
\$10,000 to \$14,999.....	13.5	17.8	13.4	13.2	17.6	13.0	16.5	(B)	16.5
\$15,000 to \$19,999.....	12.6	12.4	12.6	12.6	12.3	12.6	12.4	(B)	12.4
\$20,000 to \$24,999.....	12.6	13.6	12.5	13.0	13.6	13.0	9.6	(B)	9.6
\$25,000 to \$29,999.....	11.2	8.0	11.2	11.5	8.0	11.6	8.2	(B)	8.2
\$30,000 to \$34,999.....	9.1	7.1	9.1	9.6	7.4	9.7	4.8	(B)	4.9
\$35,000 to \$39,999.....	6.8	3.5	6.9	7.1	3.6	7.2	4.0	(B)	4.0
\$40,000 to \$44,999.....	4.7	2.9	4.8	5.0	3.0	5.1	2.1	(B)	2.1
\$45,000 to \$49,999.....	3.4	2.1	3.4	3.6	2.1	3.7	1.8	(B)	1.8
\$50,000 and over.....	8.9	5.6	9.0	9.7	5.7	9.8	2.1	(B)	2.2
Median income.....dollars..	22,388	17,082	22,554	23,517	17,248	23,742	13,257	(B)	13,284
Mean income.....dollars..	25,838	19,867	25,998	26,934	20,013	27,141	16,696	(B)	16,724
Percent of families--									
Below poverty level.....	11.2	20.3	11.0	8.8	19.8	8.4	30.8	(B)	30.7
Above poverty level.....	88.8	79.7	89.0	91.2	80.2	91.6	69.2	(B)	69.3
Percent of persons--									
Below poverty level.....	14.0	23.0	13.8	11.1	22.0	10.8	34.2	49.3	34.1
Above poverty level.....	86.0	77.0	86.2	88.9	78.0	89.2	65.8	50.7	65.9

Source: March 1982 Current Population Survey.

Table 14. Median Income of Farm and Nonfarm Families, by Race of Householder: 1970 to 1981

(In 1981 dollars. Families as of March of the following year. For meaning of symbols, see text)

Year	All races			White			Black		
	Total	Farm	Nonfarm	Total	Farm	Nonfarm	Total	Farm	Nonfarm
<b>CURRENT FARM DEFINITION</b>									
1981.....	22,388	17,082	22,554	23,517	17,248	23,742	13,267	(B)	13,284
1980.....	23,204	17,389	23,345	24,176	17,744	24,348	13,989	(B)	14,018
1979 (based on 1980 census population controls) <sup>2</sup> .....	24,543	20,400	24,656	25,610	20,858	25,741	14,502	(B)	14,562
1979 (based on 1970 census population controls) <sup>1</sup> .....	24,635	20,495	24,751	25,689	20,905	25,823	14,590	(B)	14,646
1978.....	24,602	21,395	24,701	25,620	21,748	(NA)	15,174	(B)	(NA)
1977.....	24,025	18,363	24,203	25,124	(NA)	(NA)	14,354	(NA)	(NA)
<b>PREVIOUS FARM DEFINITION</b>									
1979.....	24,635	20,853	(NA)	25,689	21,304	(NA)	14,590	(B)	(NA)
1978.....	24,602	21,316	24,730	25,620	21,706	25,763	15,174	9,503	15,259
1977.....	24,025	18,965	24,222	25,124	19,634	25,352	14,354	8,346	14,482
1976.....	23,888	18,633	24,069	24,823	19,377	24,997	14,766	8,277	14,946
1975.....	23,173	18,326	23,368	24,110	18,991	24,318	14,834	8,352	14,991
1974.....	23,786	19,570	23,960	24,729	20,114	24,930	14,766	9,632	14,884
1973.....	24,653	20,559	24,870	25,776	21,242	26,008	14,877	9,412	15,018
1972.....	24,156	19,245	24,412	25,108	19,810	25,389	14,922	8,526	15,085
1971.....	23,088	16,155	23,433	23,966	16,646	24,331	14,462	7,319	14,706
1970.....	23,100	15,873	23,448	23,975	16,442	24,342	14,706	7,090	14,977

<sup>2</sup>See appendix B.

Source: March Current Population Surveys.

## Appendix A. Definitions and Explanations

**Population coverage.** All figures in this report relate to the civilian noninstitutional population, with the exceptions of (1) the figures shown in table A which relate to the total resident population and (2) the marital status/family data (tables 5-7) and income/poverty data (tables 13 and 14) which relate to the civilian noninstitutional population plus members of the Armed Forces in the United States living off post or with their families on post.

All 1982 figures in this report, as well as the 1981 income and poverty data in table 13 and the 1979-81 income data in table 14, are consistent with the results of the 1980 census and are based on 1980 population controls. All other figures are based on 1970 population controls except for data prior to 1970 shown in table A and table 1, which are consistent with the results of those censuses.

**Farm population.** In the Current Population Survey, the farm population as currently defined consists of all persons living in rural territory on places from which \$1,000 or more of agricultural products were sold, or normally would have been sold, in the reporting year (for the CPS the preceding 12 months). Persons in summer camps, motels, and tourist camps, and those living on rented places where no land is used for farming, are classified as nonfarm.

Under the previous farm definition, the farm population consisted of all persons living in rural territory on places of 10 or more acres if at least \$50 worth of agricultural products were sold from the place in the reporting year. It also included those living on places of under 10 acres if at least \$250 worth of agricultural products were sold from the place in the reporting year.

Farm residence under the previous farm definition was determined in the Current Population Survey by the responses to two questions. Owners (and renters) were first asked "Does this place (you rent) have 10 or more acres?" They were then asked "During the past 12 months, how much did sales of crops, livestock, and other farm products from this place amount to?" The respondents were given a choice of four answers: "\$1,000 or more," "\$250 to \$999," "\$50 to \$249," and "Under \$50."

Farms located within the boundaries of urban territory, comprising a small minority of all farms, are not treated as farms for population census purposes, and their population is not included in the farm population. Urban territory includes all places with a population of 2,500 or more and the densely settled urbanized fringe areas around cities of 50,000 or more. Beginning with the 1972 estimate, the estimated farm

population is limited to the rural territory as determined in the 1970 Census of Population. In the Current Population Surveys of 1963 through 1971, the urban-rural boundaries used were those of the 1960 Census of Population and did not take into account the annexations and other substantial expansions of urban territory that were incorporated into the 1970 Census of Population. The net effect was to classify an unknown number of persons as rural farm in the Current Population Surveys of 1970 and 1971 who were treated as urban (and hence nonfarm) in the 1970 census as well as in the Current Population Surveys beginning in 1972.

**Nonfarm population.** The nonfarm population comprises all persons living in urban areas and all rural persons not on farms.

**Five-quarter averages, centered on April.** April-centered annual averages of the farm population were computed by using data for the five quarters centered on the April date for which the estimate was being prepared. For example, for April 1982, quarterly estimates for the months of October 1981, and January, April, July, and October 1982 were used with a weight of one-eighth given to each of the two October estimates and a weight of one-fourth to each of the estimates for the other 3 months. One reason for the choice of April as the date for centering population estimates is that this is the decennial census month.

April-centered annual averages for persons under 14 years by race and sex, and for persons 14 years old and over, by race, sex, age, labor force characteristics, and region were also computed for 1982 by using data for the specified characteristics for the five quarters centered on April 1982.

**Metropolitan-nonmetropolitan residence.** The population residing in standard metropolitan statistical areas (SMSA's) constitutes the metropolitan population. The metropolitan population in this report is based on SMSA's as defined in the 1970 population census publications and does not include any subsequent additions or changes. For the 1970 census, except in New England, an SMSA was defined as a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more, or "twin cities" with a combined population of at least 50,000. In addition to the county, or counties, containing such a city or cities, contiguous counties were included in an SMSA if, according to certain criteria, they were essentially metropolitan in character and were socially and economically integrated with



the central county. In New England, SMSA's consist of towns and cities, rather than counties.

**Geographic regions.** The four major regions of the United States for which data are presented represent groups of States as follows:

**Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

**North Central:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin.

**South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia.

**West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

**North and West:** Northeast, North Central, and West regions combined.

**Age.** The age classification is based on the age of the person at last birthday.

**Race.** The population is divided into three groups on the basis of race: White, Black, and "other races." The last category includes Indians, Japanese, Chinese, and any other race except White and Black.

**Persons of Spanish origin.** Persons of Spanish origin in this report were determined on the basis of a question that asked for self-identification of the person's origin, or descent. Respondents were asked to select their origin (or the origin of some other household member) from a "flash card" listing ethnic origins. Persons of Spanish origin, in particular, were those who indicated that their origin was Mexican, Puerto Rican, Cuban, Central or South American, or some other Spanish origin. It should be noted that persons of Spanish origin can be of any race.

**Householder.** The householder refers to the person (or one of the persons) in whose name the housing unit is owned or rented (maintained) or, if there is no such person, any adult member, excluding roomers, boarders, or paid employees. If the house is owned or rented jointly by a married couple, the householder may be either the husband or the wife. The person designated as the householder is the "reference person" to whom the relationship of all other household members, if any, is recorded. The number of householders is equal to the number of households. Also, the number of family householders is equal to the number of families.

**Family.** A family is a group of two persons or more (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such persons (including related subfamily members such as children and their spouses) are considered as members of one family. Beginning with the 1980 CPS, unrelated subfamilies (referred to in the past as secondary families) are no longer included in the count of families, nor are the members of unrelated subfamilies included in the count of family members.

**Size of family.** The term "size of family" includes the family householder and all other persons in the living quarters who are related to the householder by birth, marriage, or adoption.

**Own children and related children under 18 years of age.** "Own" children in a family are sons and daughters, including stepchildren and adopted children of the householder. "Related" children in a family include own children and all other children in the household who are related to the householder by birth, marriage, or adoption.

**Marital status.** The marital status classification identifies four major categories: single (never married), married, widowed, and divorced. These terms refer to the marital status at the time of the enumeration.

The category "married" is further divided into "married, spouse present," "separated," and "other married, spouse absent." A person was classified as "married, spouse present" if the husband or wife was reported as a member of the household, even though he or she may have been temporarily absent on business or on vacation, visiting in a hospital, etc., at the time of the enumeration. Persons reported as separated included those with legal separations, those living apart with intentions of obtaining a divorce, and other persons permanently or temporarily separated because of marital discord. The group "other married, spouse absent" includes married persons living apart, because either the husband or wife was employed and living at a considerable distance from home, was serving away from home in the Armed Forces, had moved to another area, or had a different place of residence for any other reason except separation as defined above.

**Children ever born.** The term "children ever born" refers to the total number of live births reported by women. Included in the number are children born to the woman before her present marriage, children no longer living, and children away from home, as well as children who were still living in the home.

**Births to date.** In the data on birth expectations in table D, the number of "births to date" has the same meaning as the number of children ever born.

**Future births expected.** In the data on birth expectations in table D, the number of "future births expected" refers to any births a woman expects, in addition to the children she has already borne, if any.



**Lifetime births expected.** In data on birth expectations in table D, the number of "lifetime births expected" refers to the sum of births to date and future births expected. The sum represents the total number of births a woman expects during her lifetime.

**Labor force and employment status.** The definitions of labor force and employment status in this report relate to the population 14 years old and over.

**Labor force.** Persons are classified as in the labor force if they were employed as civilians, unemployed, or in the Armed Forces during the survey week. The "civilian labor force" is comprised of all civilians classified as employed or unemployed.

**Employed.** Employed persons comprise (1) all civilians who, during the specified week, did any work at all as paid employees or in their own business or profession, or on their own farm, or who worked 15 hours or more as unpaid workers on a farm or in a business operated by a member of the family, and (2) all those who were not working but who had jobs or businesses from which they were temporarily absent because of illness, bad weather, vacation, or labor-management dispute, or because they were taking time off for personal reasons, whether or not they were paid by their employers for time off, and whether or not they were seeking other jobs. Excluded from the employed group are persons whose only activity consisted of work around the house (such as own home housework, painting or repairing own home, etc.) or volunteer work for religious, charitable, and similar organizations.

**Unemployed.** Unemployed persons are those civilians who, during the survey week, had no employment but were available for work and (1) had engaged in any specific job-seeking activity within the past 4 weeks, such as registering at a public or private employment office, meeting with prospective employers, checking with friends or relatives, placing or answering advertisements, writing letters of application, or being on a union or professional register; (2) were waiting to be called back to a job from which they had been laid off; or (3) were waiting to report to a new wage or salary job within 30 days.

**Not in the labor force.** All civilians 14 years old and over who are not classified as employed or unemployed are defined as "not in the labor force." This group who are neither employed nor seeking work includes persons engaged only in own home housework, attending school, or unable to work because of long-term physical or mental illness; persons who are retired or too old to work; seasonal workers for whom the survey week fell in an off season; and the voluntarily idle. Persons doing only unpaid family work (less than 15 hours during the survey week) are also classified as not in the labor force.

**Agriculture.** The industry category "agriculture" is somewhat more inclusive than the total of the two major occupation

groups, "farmers and farm managers" and "farm laborers and supervisors." It also includes (1) persons employed on farms in occupations such as truck driver, mechanic, and bookkeeper, and (2) persons engaged in certain activities other than strictly farm operation such as cotton ginning, contract farm services, veterinary and breeding services, hatcheries, experimental stations, greenhouses, landscape gardening, tree service, trapping, hunting preserves, and kennels.

**Nonagricultural industries.** The category includes all industries not specifically classed under agriculture. The industry groups shown were based on the classification system used in the 1970 Census of Population.

**Multiple jobs.** Persons with two or more jobs during the survey week were classified as employed in the industry in which they worked the greatest number of hours during the week. Consequently, some of the persons shown in this report as engaged in nonagricultural activities also engaged in agriculture and vice versa.

#### **Class of worker:**

**Self-employed workers.** Persons who worked for profit or fees in their own business, profession, or trade, or who operated a farm either as an owner or tenant.

**Wage and salary workers.** Persons who worked for any governmental unit or private employer for wages, salaries, commissions, tips, pay "in kind," or at piece rates.

**Unpaid family workers.** Persons who worked 15 or more hours per week without pay on a farm or in a business operated by a person to whom they are related by birth or marriage.

**Money income.** This is defined as the algebraic sum of money wages and salaries, net income from farm and nonfarm self-employment, and income other than earnings. Data on income cover money income received (exclusive of certain money receipts such as capital gains) before payments for personal income taxes, Social Security, union dues, Medicare deductions, etc. Therefore, money income does not reflect the fact that some families receive part of their income in the form of noncash benefits such as food stamps, health benefits, and subsidized housing; that some farm families receive noncash benefits in the form of rent-free housing and goods produced and consumed on the farm; or that noncash benefits are also received by some nonfarm residents which often take the form of the use of business transportation and facilities, full or partial payments by business for retirement programs, medical and educational expenses, etc. These elements should be considered when comparing income levels.

For each person in the CPS 15 years old and over, questions were asked on the amount of money income received in the preceding calendar year from each of the following

sources: (1) money wages or salary; (2) net income from nonfarm self-employment; (3) net income from farm self-employment; (4) Social Security or railroad retirement; (5) Supplemental Security income; (6) public assistance or welfare payments; (7) interest on savings or other investments which pay interest; (8) dividends, income from estates or trusts, or net rental income; (9) veterans' payments or unemployment and workers' compensation; (10) private pensions or government employee pensions; (11) alimony or child support, regular contributions from persons not living in the household, and other periodic income.

Receipts from the following sources are not included as income: (1) money received from the sale of property, such as stocks, bonds, a house, or a car (unless the person was engaged in the business of selling such property, in which case the net proceeds would be counted as income from self-employment); (2) withdrawals of bank deposits; (3) money borrowed; (4) tax refunds; (5) gifts; and (6) lump-sum inheritances or insurance payments.

**Family income.** The total income of a family is the algebraic sum of the amounts received by all income recipients in the family.

In the income distribution for families, the lowest income group (under \$2,500 or less) includes those families who were classified as having no income in the income year and those reporting a loss in net income from farm and nonfarm self-employment or in rental income. Some of these were living on income "in kind," savings, or gifts; or were newly constituted families; or families in which the sole earner had recently died or had left the household. However, other families who reported no income probably had some money income which was not recorded in the survey.

It should be noted that although the income statistics refer to receipts during the preceding year, the composition of families refers to the time of the survey. The income of the family does not include amounts received by persons who were members of the family during all or part of the income year if these persons no longer resided with the family at the time of enumeration. However, family income includes amounts reported by related persons who did not reside with the family during the income year but who were members of the family at the time of enumeration.

**Median and mean income.** The median income is the amount which divides the distribution into two equal groups, one having incomes above the median, and the other having incomes below the median. The mean income is the amount

obtained by dividing the total income of a group by the number of units in that group. The medians and means for families are based on all families.

**Poverty definition.** Families and unrelated individuals are classified as being above or below the poverty level using the poverty index originated at the Social Security Administration in 1964 and revised by Federal Interagency Committees in 1969 and 1980. The poverty index is based solely on money income and does not reflect the fact that many low-income persons receive noncash benefits such as food stamps, Medicaid, and public housing. The index is based on the Department of Agriculture's 1961 Economy Food Plan and reflects the different consumption requirements of families based on their size and composition. It was determined from the Department of Agriculture's 1955 Survey of Food Consumption that families of three or more persons spend approximately one-third of their income on food; the poverty level for these families was, therefore, set at three times the cost of the Economy Food Plan. For smaller families and persons living alone, the cost of the Economy Food Plan was multiplied by factors that were slightly higher in order to compensate for the relatively larger fixed expenses of these smaller households. The poverty thresholds are updated every year to reflect changes in the Consumer Price Index (CPI). The average poverty threshold for a family of four was \$9,287 in 1981, about 10.4 percent higher than the comparable 1980 cutoff of \$8,414. For further details, see Current Population Reports, Series P-60, No. 138.

**Median.** The median is the value which divides a distribution into two equal parts, one-half of the cases falling below this value and one-half of the cases exceeding this value.

**Symbols.** A dash (-) represents zero or a number which rounds to zero. The symbol "B" means that the base for the derived figure is less than 75,000, an "X" means not applicable, and "NA" means not available.

**Rounding.** The individual figures in this report are rounded to the nearest thousand. With few exceptions, the individual figures have not been adjusted to group totals, which are independently rounded. Percentages are rounded to the nearest tenth of a percent; therefore, the percentages in a distribution do not always add to exactly 100.0 percent. The totals, however, are always shown as 100.0. Percentages are based on the rounded absolute numbers.

## Appendix B. Source and Reliability of Estimates

### SOURCE OF DATA

Estimates in this report are primarily derived from data obtained from the Current Population Survey (CPS) of the Bureau of the Census with some data from the U.S. Department of Agriculture. Most of these CPS estimates are April-centered, five-quarter averages. (See "Appendix A. Definitions and Explanations.") Data on fertility, marital status, income, and poverty of farm and nonfarm residents, however, are monthly estimates obtained from supplementary questions to the CPS.

**Current Population Survey (CPS).** The monthly CPS deals mainly with labor force data for the civilian noninstitutional population. Questions relating to labor force participation are asked about each member 14 years old and older in each sample household. In addition, supplementary questions regarding income and marital status are asked each March and fertility each June. Estimates developed from the supplementary questions asked in March include persons in the Armed Forces living off post or with their families on post.

The present CPS sample was initially selected from the 1970 census files with coverage in all 50 States and the District of Columbia. The sample is continually updated to reflect new construction where possible. The monthly CPS sample is located in 629 areas comprising 1,148 counties, independent cities, and minor civil divisions in the Nation. In this sample, approximately 61,600 occupied households were eligible for interview. Of this number, about 2,500 occupied units were visited but interviews were not obtained because the occupants were not found at home after repeated calls or were unavailable for some other reason.

Samples from previous designs were selected from files from the most recently completed census. The following table

provides a description of some aspects of the CPS sample designs in use during the referenced data-collection periods.

The estimation procedure used in this survey involves the inflation of the weighted sample results to independent estimates of the total civilian noninstitutional population of the United States by age, race, and sex. These independent estimates are based on statistics from decennial censuses; statistics on births, deaths, immigration, and emigration; and statistics on the strength of the Armed Forces. The estimation procedure for the data from the March supplement involved a further adjustment so that husband and wife of a household received the same weight.

**Decennial Census of Population.** Decennial census data in this report are based on the sample associated with the census.

### RELIABILITY OF ESTIMATES

Since the CPS estimates were based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same questionnaires, instructions, and enumerators. There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling. The standard errors provided for this report primarily indicate the magnitude of the sampling errors. They also partially measure the effect of some nonsampling errors in response and enumeration, but do not measure any systematic biases in the data. The full extent of nonsampling error is unknown. Consequently, particular care should be exercised in the interpretation of figures based on a relatively small number of cases or on small differences between estimates.

### Description of the Current Population Survey

Time period	Number of sample areas <sup>1</sup>	Housing units eligible	
		Interviewed	Not interviewed
April 1981 to present.....	629	59,000	2,500
January 1980 to March 1981.....	629	65,000	3,000
October 1977 to December 1979.....	614	53,500	2,500
August 1972 to September 1977.....	461	45,000	2,000
August 1971 to July 1972.....	449	45,000	2,000
January 1970 to July 1971.....	449	48,000	2,000

<sup>1</sup>These sample areas were chosen to provide coverage in each State and the District of Columbia.

**Nonsampling variability.** Nonsampling errors can be attributed to many sources, e.g., inability to obtain information about all cases in the sample, definitional difficulties, differences in the interpretation of questions, inability or unwillingness to provide correct information on the part of respondents, inability to recall information, errors made in processing the data, errors made in estimating values for missing data, and failure to represent all units with the sample (undercoverage).

Undercoverage in the CPS results from missed housing units and missed persons within sample households. Overall undercoverage, as compared to the level of the 1980 decennial census, is about 7 percent. It is known that CPS undercoverage varies with age, sex, and race. Generally, undercoverage is larger for males than for females and larger for Blacks and other races than for Whites. Ratio estimation to independent age-sex-race population controls partially corrects for the bias due to survey undercoverage. However, biases exist in the estimates to the extent that missed persons in missed households or missed persons in interviewed households have different characteristics than interviewed persons in the same age-sex-race group. Further, the independent population controls used have not been adjusted for undercoverage in the decennial census.

For additional information on nonsampling error including the possible impact on CPS data when known, refer to Statistical Policy Working Paper 3, *An Error Profile: Employment as Measured by the Current Population Survey*, Office of Federal Statistical Policy and Standards, U.S. Department of Commerce, 1978; and Technical Paper 40, *The Current Population Survey: Design and Methodology*, Bureau of the Census, U.S. Department of Commerce.

**Sampling variability.** The standard errors given in the following tables are primarily measures of sampling variability, that is, of the variation that occurred by chance because a sample rather than the entire population was surveyed. The sample estimate and its estimated standard error enable one to construct confidence intervals, ranges that would include the average result of all possible samples with a known probability. For example, if all possible samples were selected, each of these surveyed under essentially the same general conditions and using the same sample design, and if an estimate and its estimated standard error were calculated from each sample, then:

1. Approximately 68 percent of the intervals from one standard error below the estimate to one standard error above the estimate would include the average result of all possible samples.
2. Approximately 90 percent of the intervals from 1.6 standard errors below the estimate to 1.6 standard errors above the estimate would include the average result of all possible samples.
3. Approximately 95 percent of the intervals from two standard errors below the estimate to two standard errors

above the estimate would include the average result of all possible samples.

The average estimate derived from all possible samples is or is not contained in any particular computed interval. However, for a particular sample, one can say with a specified confidence that the average estimate derived from all possible samples is included in the confidence interval.

Standard errors may also be used to perform hypothesis testing, a procedure for distinguishing between population parameters using sample estimates. The most common types of hypotheses appearing in this report are 1) the population parameters are identical or 2) they are different. An example of this would be comparing the median age of farm residents versus the median age of nonfarm residents. Tests may be performed at various levels of significance, where a level of significance is the probability of concluding that the parameters are different when, in fact, they are identical. All statements of comparison in the text have passed a hypothesis test at the 0.10 level of significance or better, and most have passed a hypothesis test at the 0.05 level of significance or better. This means that, for most differences cited in the text, the estimated difference between parameters is greater than twice the standard error of the difference. For the other differences mentioned, the estimated difference between parameters is between 1.6 and 2.0 times the standard error of the difference. When this is the case, the statement of comparison is qualified in some way, e.g., by the use of the phrase "some evidence."

**Comparability of data.** Data obtained from the CPS and other governmental sources are not entirely comparable. This is due in large part to differences in interviewer training and experience and in differing survey processes. This is an additional component of error not reflected in the standard error tables. Therefore, caution should be used in comparing results between these different sources.

**Comparability with other data.** In using metropolitan and nonmetropolitan data, caution should be used in comparing estimates for 1977 and 1978 to each other or to any other years. Methodological and sample design changes occurred in these years resulting in relatively large differences in the metropolitan and nonmetropolitan area estimates. However, estimates for 1979 and later are comparable as are estimates for 1976 and earlier.

Caution should also be used when comparing five-quarter average estimates for 1982, which reflect 1980 census-based population controls to those five-quarter average estimates prior to 1982, which reflect 1970 census-based population controls. Caution should be used when comparing one month estimates for 1982 which use 1980 census-based population controls, to those for 1971 through 1981 which reflect 1970 census-based population controls. This change in population controls had relatively little impact on summary measures such as means, medians, and percent distributions, but did have a significant impact on levels. For example, use of the 1980-based population controls resulted in about a 2-percent



increase in the civilian noninstitutional population and in the number of families and households. Thus, estimates of levels for five-quarter average estimates for 1982 and estimates of levels for monthly estimates for 1982 will differ from those for earlier years by more than what could be attributed to actual changes in the population, and these differences could be disproportionately greater for certain subpopulation groups than for the total population.

Table B-1 is a special tabulation that compares selected 1981 characteristics based on 1980 census population controls and 1970 census population controls by farm and nonfarm residence. (Similar comparisons for 1982 are not available.) Use of the 1980-based population controls resulted in about a 1.0 percent increase in the 1981 farm population and about a 2.3 percent increase in the nonfarm population.

Note when using small estimates. Summary measures (such as medians and percent distributions) are shown in report only when the base is 75,000 or greater. Because of the large standard errors involved, there is little chance that summary measures would reveal useful information when computed on a smaller base. Estimated numbers are shown, however, even though the relative standard errors of these numbers are larger than those for corresponding percentages. Those smaller estimates are provided primarily to permit such combinations of the categories as serve each data user's needs.

Standard errors for data based on the decennial census. Sampling errors of all data from the samples of the decennial censuses shown in this report are small enough to be disregarded.

**Table B-1. Comparison of Selected Characteristics Based on 1980 Census and 1970 Census Population Controls, by Farm and Nonfarm Residence: 1981**

(Numbers in thousands)

Characteristic	Farm		Nonfarm	
	1980 census population controls	1970 census population controls	1980 census population controls	1970 census population controls
Total persons.....	5,850	5,790	218,763	213,793
Male.....	3,029	2,999	105,334	102,922
Female.....	2,821	2,791	113,428	110,871
White.....	5,526	5,486	187,016	183,571
Black.....	229	222	26,160	25,708
Spanish origin <sup>1</sup> .....	114	111	13,907	13,428
Under 14 years.....	1,131	1,116	46,384	45,151
14 to 24 years.....	1,137	1,120	43,389	42,262
25 to 34 years.....	616	605	36,954	35,628
35 to 44 years.....	693	694	25,385	25,132
45 to 54 years.....	763	767	21,696	21,670
55 to 64 years.....	772	758	20,949	20,402
65 years and over.....	737	731	24,006	23,548
Median age.....years..	35.6	35.7	30.3	30.3
Inside SMSA's.....	948	940	150,758	147,144
SMSA's of 1 million or more.....	224	224	85,511	83,780
SMSA's of less than 1 million.....	723	716	65,247	63,364
Outside SMSA's.....	4,901	4,849	68,006	66,650
Total, 14 years old and over.....	4,718	4,674	172,378	168,643
In labor force.....	3,030	3,008	106,841	104,558
Employed.....	2,945	2,924	98,596	96,515
Agriculture.....	1,634	1,628	1,921	1,870
Self-employed workers.....	1,038	1,037	609	596
Wage and salary workers.....	345	338	1,247	1,209
Unpaid family workers.....	251	252	65	65
Nonagricultural workers.....	1,311	1,296	96,675	94,645
Unemployed.....	85	84	8,245	8,043
Not in labor force.....	1,688	1,666	65,537	64,085

<sup>1</sup>Persons of Spanish origin may be of any race.

Source: Current Population Survey five-quarter averages centered on April 1981.

Standard error tables and their use. In order to derive standard errors that would be applicable to a larger number of estimates and could be prepared at a moderate cost, a number of approximations were required. Therefore, instead of providing an individual standard error for each estimate, generalized sets of standard errors are provided for various types of characteristics. As a result, the sets of standard errors provided give an indication of the order of magnitude of the standard error of an estimate rather than the precise standard error.

The figures presented in tables B-2 through B-5 provide approximations to the standard errors of various estimates for families and for persons. To obtain standard errors for specific characteristics, factors from table B-6 must be applied to the standard errors given in tables B-2 through B-5 in order to adjust for the combined effect of sample design and the estimating procedure on the value of the characteristic. The figures shown in table B-7 provide standard errors for number of children ever born and number of expected lifetime births per 1,000 women. Standard errors for intermediate values not shown in the generalized tables may be approximated by interpolation.

**Table B-2. Standard Errors of Estimated Numbers of Persons or Families in the Farm Population**

(Numbers in thousands)

Size of estimate	Standard error
25.....	8
50.....	11
100.....	16
250.....	25
500.....	35
1,000.....	49
2,500.....	78
5,000.....	109
10,000.....	152
15,000.....	184

Note: For a particular characteristic, see table B-6 for the appropriate factor to apply to the above standard errors.

Two parameters (denoted "a" and "b") are used to calculate standard errors for each type of characteristic; they are presented in table B-6. These parameters were used to calculate the standard errors in tables B-2 through B-5 and to calculate the factors in table B-6. They also may be used to directly calculate the standard errors for estimated numbers and estimated percentages. Methods for direct computation are given in the following sections.

Standard errors of estimated numbers. The approximate standard error,  $\sigma_x$ , of an estimated number shown in this report can be obtained in two ways. It may be obtained by use of the formula

$$\sigma_x = f\sigma \quad (1)$$

where  $f$  is the appropriate factor from table B-6 and  $\sigma$  is the standard error on the estimate obtained by interpolation from table B-2 or B-3. Alternatively, standard errors may be approximated by formula (2) below, from which the standard errors were calculated in tables B-2 and B-3. Use of this formula will provide more accurate results than the use of formula (1) above.

$$\sigma_x = \sqrt{ax^2 + bx} \quad (2)$$

Here  $x$  is the size of the estimate and  $a$  and  $b$  are the parameters in table B-6 associated with the particular type of characteristic.

Illustration of the computation of the standard error of an estimated number. Table F of the report shows that 1,608,000 farm residents 14 years old and over were employed in agriculture. Interpolation in table B-2 shows the

**Table B-3. Standard Errors of Estimated Numbers of Persons or Families in the Total or Nonfarm Population**

(Numbers in thousands)

Size of estimate	Standard error
25.....	7
50.....	11
100.....	15
250.....	24
500.....	33
1,000.....	47
2,500.....	74
5,000.....	104
10,000.....	145
15,000.....	176
25,000.....	221
50,000.....	293
100,000.....	348
150,000 <sup>1</sup> .....	327

<sup>1</sup>To derive the standard errors for an estimate greater than 150,000,000, use formula (2).

Note: For a particular characteristic, see table B-6 for the appropriate factor to apply to the above standard errors.

standard error on an estimate of this size to be approximately 61,000. Table B-6 shows that for the farm, agriculture employed characteristic, the appropriate factor is 1.0. Applying the factor and using formula (1) would yield a standard error of 61,000.<sup>1</sup>

The 68-percent confidence interval for the number of farm residents 14 years old and over employed in agriculture is from 1,547,000 to 1,669,000. The 95-percent confidence interval is from 1,486,000 to 1,730,000 (using twice the

<sup>1</sup>Alternatively, using formula (2) and table B-6, the approximate standard error is 62,500.



Table B-4. Standard Errors of Estimated Percentages of Persons or Families in the Farm Population

Base of percentages (thousands)	Estimated percentages					
	1 or 99	2 or 98	5 or 95	10 or 90	25 or 75	50
25.....	3.1	4.4	6.8	9.4	13.6	15.7
50.....	2.2	3.1	4.8	6.6	9.6	11.1
100.....	1.6	2.2	3.4	4.7	6.8	7.8
250.....	1.0	1.4	2.2	3.0	4.3	5.0
500.....	0.7	1.0	1.5	2.1	3.0	3.5
1,000.....	0.5	0.7	1.1	1.5	2.1	2.5
2,500.....	0.3	0.4	0.7	0.9	1.4	1.6
5,000.....	0.2	0.3	0.5	0.7	1.0	1.1
10,000.....	0.2	0.2	0.3	0.5	0.7	0.8
15,000.....	0.13	0.2	0.3	0.4	0.6	0.6

Note: For a particular characteristic, see table B-6 for the appropriate factor to apply to the above standard errors.

Table B-5. Standard Errors of Estimated Percentages of Persons or Families in the Total or Nonfarm Population

Base of percentages (thousands)	Estimated percentages					
	1 or 99	2 or 98	5 or 95	10 or 90	25 or 75	50
25.....	3.0	4.2	6.5	8.9	12.9	14.9
50.....	2.1	2.9	4.6	6.3	9.1	10.5
100.....	1.5	2.1	3.2	4.5	6.4	7.4
250.....	0.9	1.3	2.1	2.8	4.1	4.7
500.....	0.7	0.9	1.4	2.0	2.9	3.3
1,000.....	0.5	0.7	1.0	1.4	2.0	2.4
2,500.....	0.3	0.4	0.6	0.9	1.3	1.5
5,000.....	0.2	0.3	0.5	0.6	0.9	1.1
10,000.....	0.15	0.2	0.3	0.4	0.6	0.7
15,000.....	0.12	0.2	0.3	0.4	0.5	0.6
25,000.....	0.09	0.13	0.2	0.3	0.4	0.5
50,000.....	0.07	0.09	0.14	0.2	0.3	0.3
100,000.....	0.05	0.07	0.10	0.14	0.2	0.2
150,000.....	0.04	0.05	0.08	0.12	0.2	0.2
200,000.....	0.03	0.05	0.07	0.10	0.14	0.2

Note: For a particular characteristic, see table B-6 for the appropriate factor to apply to the above standard errors.

standard error). Therefore, a conclusion that the average estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 95 percent of all possible samples.

**Standard errors of estimated percentages.** The reliability of an estimated percentage, computed by using sample data for both numerator and denominator, depends on both the size of the percentage and the size of the total upon which this percentage is based. Estimated percentages are relatively more reliable than the corresponding estimates of the numerators of the percentages, particularly if the percentages are 50 percent or more. When the numerator and denominator of the percentage are in different categories, use the factor or parameters indicated by the numerator. The approximate standard error,  $\sigma_{(x,p)}$ , of an estimated percentage can be obtained by use of the formula

$$\sigma_{(x,p)} = f \sigma \quad (3)$$

In this formula  $f$  is the appropriate factor from table B-6 and  $\sigma$  is the standard error on the estimate from table B-4 or B-5.

Alternatively, the standard error may be approximated by formula (4) below, from which the standard errors in table B-4 and B-5 were calculated; direct computation will give more accurate results than use of the standard error tables and the factors.

$$\sigma_{(x,p)} = \sqrt{\frac{b}{x} \cdot p (100-p)} \quad (4)$$

Here  $x$  is the size of the subclass of persons or families which is the base of the percentage,  $p$  is the percentage ( $0 \leq p \leq 100$ ), and  $b$  is the parameter in table B-6 associated with the particular type of characteristic in the numerator of the percentage.

**Illustration of the computation of the standard error of a percentage.** Table F also shows that of the 338,000 female farm residents employed in agriculture, 60,000 or 17.8 percent were wage and salary workers. Table B-6 shows the  $b$  parameter for this characteristic to be 2455; using formula

Table B-6. Parameters and Factors To Be Used to Obtain Standard Errors for Each Type of Characteristic

Type of characteristic	Parameters		f factors	Apply f factor to the standard error tables
	a	b		
FIVE-QUARTER AVERAGES				
Farm Population				
Race, age, sex, and employment subsets				
Total farm population, agricultural employment, or nonagricultural employment:				
All races.....	-0.000014	2,455	1.0	B-2,B-4
Spanish origin.....	(X)	5,219	1.5	B-2,B-4
Unemployed:				
Total or white.....	-0.000006	1,054	0.7	B-2,B-4
Black and other races.....	-0.000053	1,211	0.7	B-2,B-4
Spanish origin.....	(X)	997	0.6	B-2,B-4
Total or Nonfarm Population				
Population (race, age, sex):				
Total or white.....	0.0	0	0.0	B-3,B-5
Black and other races.....	0.0	0	0.0	B-3,B-5
Spanish origin.....	-0.000039	7,815	1.9	B-3,B-5
Employment subsets				
Agricultural employment:				
All races.....	-0.000017	2,050	1.0	B-3,B-5
Nonagricultural employment:				
Total or white.....	-0.000008	1,081	0.7	B-3,B-5
Male.....	-0.000013	935	0.7	B-3,B-5
Female.....	-0.000010	801	0.6	B-3,B-5
Black and other races.....	-0.000069	1,081	0.7	B-3,B-5
Male.....	-0.000115	935	0.7	B-3,B-5
Female.....	-0.000079	801	0.6	B-3,B-5
Unemployed.....	-0.000004	552	0.5	B-3,B-5
Metropolitan Residence				
Nonfarm:				
Total or white.....	-0.000010	2,212	1.0	B-3,B-5
Black.....	-0.000160	3,849	1.3	B-3,B-5
Spanish origin.....	(X)	7,815	1.9	B-3,B-5
Farm:				
Total or white.....	-0.000017	5,036	1.4	B-2,B-4
Black.....	-0.000262	8,765	1.9	B-2,B-4
Spanish origin.....	(X)	17,796	2.7	B-2,B-4
Nonmetropolitan Residence				
Nonfarm:				
Total or white.....	-0.000015	3,318	1.2	B-3,B-5
Black.....	-0.000240	5,774	1.6	B-3,B-5
Spanish origin.....	(X)	7,815	1.9	B-3,B-5
Farm:				
Total or white.....	-0.000026	7,554	1.8	B-2,B-4
Black.....	-0.000393	13,148	2.3	B-2,B-4
Spanish origin.....	(X)	17,796	2.7	B-2,B-4

See footnotes at end of table.

**Table B-6. Parameters and Factors To Be Used to Obtain Standard Errors for Each Type of Characteristic—Continued**

Type of characteristic	Parameters		f factors	Apply f factor to the standard error tables
	a	b		
<b>MONTHLY LEVEL</b>				
<b>Family Income</b>				
Farm.....	-0.000011	3,167	1.1	B-2,B-4
Nonfarm.....	-0.000010	1,721	0.9	B-3,B-5
<b>Poverty-Family</b>				
Farm:				
Total or White.....	0.000085	3,452	(1)	(X)
Black.....	0.000085	3,452	(1)	(X)
Nonfarm:				
Total or White.....	0.000076	1,876	(1)	(X)
Black.....	0.000076	1,876	(1)	(X)
<b>Marital Status-Household and Family Characteristics</b>				
<b>Family</b>				
Farm:				
Total or White.....	-0.000011	2,556	1.0	B-2,B-4
Black and other races.....	-0.000097	2,309	1.0	B-2,B-4
Nonfarm:				
Total or White.....	-0.000010	1,389	0.8	B-3,B-5
Black and other races.....	-0.000087	1,255	0.8	B-3,B-5
<b>Persons</b>				
Farm:				
Total or White.....	-0.000023	6,685	1.7	B-2,B-4
Black.....	-0.000298	9,588	2.0	B-2,B-4
Nonfarm:				
Total or White.....	-0.000017	3,500	1.3	B-3,B-5
Black.....	-0.000210	5,020	1.5	B-3,B-5
<b>Fertility (Number of Women)</b>				
Farm.....	-0.000042	3,242	1.1	B-2,B-4
Nonfarm.....	-0.000031	1,693	0.9	B-3,B-5

X Not applicable.

"f" factors are not available for these characteristics. To obtain standard errors for these characteristics, use the "a" and "b" parameters given and formula (2) or (4).

NOTE: For regional (North Central, Northeast, South, and West) data cross-tabulated with other data, apply the factors 1.02, 0.99, 0.98, 0.84, respectively. For regions North and West combined, use 0.96.

(4) the standard error,  $\sigma_{(x,p)}$ , on an estimate of 17.8 percent is

$$\sqrt{\frac{2455}{338,000}} (17.8)(100.0-17.8) \doteq 3.3 \text{ percent}^2$$

Thus, the 68-percent confidence interval on the percent of female farm residents that were wage and salary workers is from 14.5 to 21.1, and the 95-percent confidence interval is from 11.2 to 24.4.

<sup>2</sup> Alternatively, using formula (3), table B-4, and factor table B-8, approximate standard error is computed to be  $1.0 \times 3.3 = 3.3$ .

Standard error of a difference. For a difference between two sample estimates, the standard error is approximately equal to

$$\sigma_{(x,y)} = \sqrt{\sigma_x^2 + \sigma_y^2} \quad (5)$$

where  $\sigma_x$  and  $\sigma_y$  are the standard errors of the estimates  $x$  and  $y$ , respectively; the estimates can be of numbers, percents, ratios, etc. This will represent the actual standard error quite accurately for the difference between two estimates of the same characteristic in two different areas, or

for the difference between two separate and uncorrelated characteristics in the same area. If, however, there is a high positive (negative) correlation between the two characteristics, the formula will overestimate (underestimate) the true standard error.

Illustration of the computation of the standard error of a difference between estimated percentages. Table F of this report also shows that of the 362,000 female nonfarm resident agricultural workers, 252,000 or 69.6 percent were wage and salary workers. As mentioned above, the percentage of female farm resident agricultural workers that were wage and salary workers was 17.8 percent. Thus, the apparent difference between farm and nonfarm female agricultural workers that were wage and salary workers is 51.8 percent. Using table B-6 and formula (4), the standard error,  $\sigma_{(y,p)}$ , on an estimate 69.6 percent with a base of 362,000 is approximately 3.5 percent. Using formula (5), the standard error of the estimated difference of 51.8 percent is about

$$\sqrt{(3.3)^2 + (3.5)^2} \approx 4.8 \text{ percent}$$

This means that the 68-percent confidence interval on the difference between the female farm and nonfarm resident agricultural workers that were wage and salary workers is from 47.0 to 56.6 percent. The 95-percent confidence interval on the difference of 51.8 percent is from 42.2 to 61.4 percent. Therefore, a conclusion that the average estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 95 percent of all possible samples. Since this interval does not contain zero, we can conclude with 95-percent confidence that the percent of female nonfarm resident agricultural workers that were wage and salary workers is greater than the percent female farm resident agricultural workers that were wage and salary.

**Standard error of a ratio.** Certain mean values for persons in families or households shown in this report were calculated as the ratio of two numbers. For example, the mean number of persons per family or household is calculated as

$$\frac{x}{y} = \frac{\text{total number of persons in families or households}}{\text{total number of families or households}}$$

Standard errors for these means may be approximated as shown below. The denominator  $y$  represents a count of families or households of a certain class, and the numerator  $x$  represents a count of persons with the characteristic under consideration who are members of these families or households. The standard errors are approximated by the following formula:

$$\sigma_{\frac{x}{y}} = \sqrt{\left(\frac{x}{y}\right)^2 \left(\frac{\sigma_y}{y}\right)^2 + \left(\frac{\sigma_x}{x}\right)^2} \quad (6)$$

The standard error of the estimated number of families or households,  $\sigma_y$ , and the standard error of the estimated

number of persons with the characteristics in those families or households,  $\sigma_x$ , may be calculated by the method described above.

**Standard error of a median.** The sampling variability of an estimated median depends upon the form of the distribution as well as the size of its base. An approximate method for measuring the reliability of an estimated median is to determine a confidence interval about it. (See the section on sampling variability for a general discussion of confidence intervals.) The following procedure may be used to estimate the 68-percent confidence limits of a median based on sample data.

1. Determine, using the standard error tables and factors or formula (4), the standard error of the estimate of 50 percent from the distribution.
2. Add to and subtract from 50 percent the standard error determined in step (1).
3. Using the distribution of the characteristic, calculate the 68-percent confidence interval by calculating the values corresponding to the two points established in step (2).
4. Once the limits of the 68-percent confidence interval are computed, the standard error of a median can be computed by the formula:

$$\sigma_{\text{median}} = \frac{U-L}{2}$$

where:  $U$  = Upper limit of the 68-percent confidence interval.

$L$  = Lower limit of the 68-percent confidence interval.

Illustration of the computation of a confidence interval for a median. According to the current definition of a farm, table 4 of this report shows that in 1982 the median age of females living on farms was 35.9 years old. The size, or base, of the distribution from which this median was determined is 2,701,000 women.

1. Using formula (4), the standard error of 50 percent on a base of 2,701,000 is about 1.6 percent.
2. To obtain a 68-percent confidence interval on an estimated median, add to and subtract from 50 percent the standard error found in step (1). This yields percent limits of 48.4 and 51.6.
3. Since 43.2 percent of the females living on farms were less than 30 years old and 5.7 percent were between 30 to 34 years old, the lower limit of the median age may be found by interpolation to be

Table B-7. Standard Errors of Estimated Fertility Ratios for the Total or Nonfarm Population

Number of women (thousands)	Children ever born or expected per 1,000 women							
	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000
250.....	51	93	129	164	198	234	274	315
500.....	36	66	92	116	140	166	194	222
750.....	30	54	74	95	114	135	158	181
1,000.....	26	47	65	82	99	117	137	158
2,000.....	18	33	45	58	70	83	97	112
5,000.....	11	20	29	37	44	52	61	70
10,000.....	9	15	20	26	31	38	44	50
15,000.....	7	12	16	21	26	29	35	41
20,000.....	6	11	15	19	23	27	31	35
25,000.....	5	9	12	16	20	24	28	32

Note: To derive the standard errors for the farm population, multiply the standard errors obtained above by 1.1.

$$30 + (35-30) \left( \frac{48.4-43.2}{5.7} \right) = 34.6 \text{ years}$$

Since 6.2 percent of the females living on farms were between 35 to 39 years old, the median age of the upper limit may be found by linear interpolation to be about

$$35 + (40-35) \left( \frac{51.6-48.9}{6.2} \right) = 37.2 \text{ years}$$

Thus, the 68-percent confidence interval on the median age of females living on farms is from 34.6 to 37.2 years.

4. The standard error of the median is, therefore,

$$\frac{37.2-34.6}{2} = 1.3 \text{ years}$$

Similarly, the 95-percent confidence interval on the median age of females living on farms is found to be from 33.3 to 38.5.

Standard error of estimated arithmetic mean. The standard error of an arithmetic mean can be approximated by formula (7) below. Because of the approximations used in developing formula (7), an estimate of the standard error of the mean

obtained from that formula will generally underestimate the true standard error. The formula used to estimate the standard error of a mean is

$$\sigma_x = \sqrt{\frac{bs^2}{y}} \quad (7)$$

where  $y$  is the size of the base and  $b$  is the parameter from table B-6 corresponding to the characteristic of interest. The variance,  $S^2$ , is given by formula (8)

$$S^2 = \sum_{i=1}^c p_i \bar{x}_i^2 - \bar{x}^2 \quad (8)$$

where  $\bar{x}$  is the mean of the distribution;  $c$  is the number of groups;  $i$  indicates a specific group, thus taking on values 1 through  $c$ ;  $p_i$  is the estimated proportion with the characteristic in group  $i$ ;  $Z_{i-1}$  and  $Z_i$  are the lower and upper interval boundaries, respectively, for group  $i$ ; and  $\bar{x}_i = \frac{Z_{i-1} + Z_i}{2}$

which is assumed to be the most representative value for the characteristic for persons or families in group  $i$ . Group  $c$  is open-ended, i.e., no upper interval boundary exists. For this group, an approximate average value is

$$\bar{x}_c = (3/2)Z_{c-1}$$